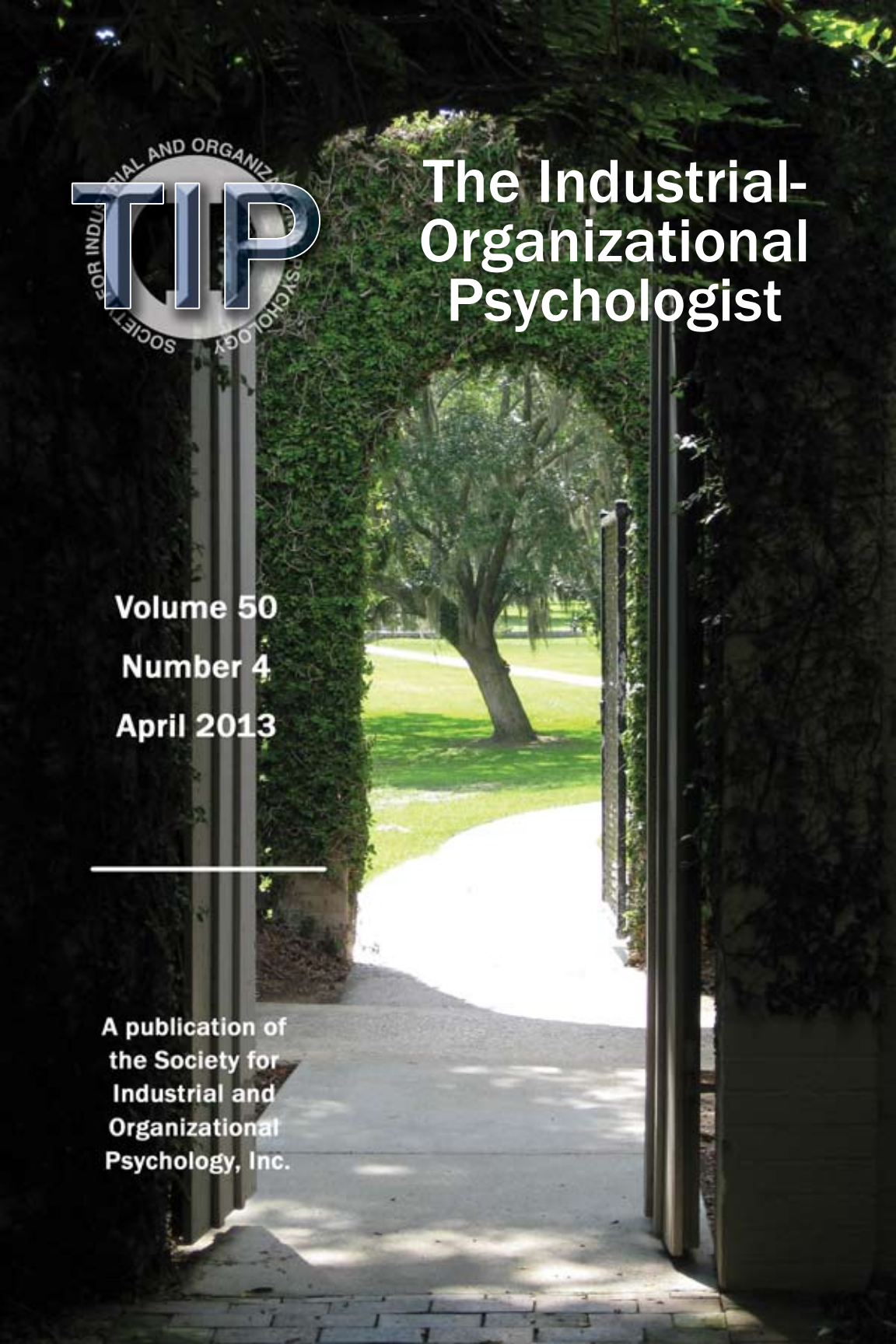


The Industrial-Organizational Psychologist

Volume 50
Number 4
April 2013

A publication of the Society for Industrial and Organizational Psychology, Inc.

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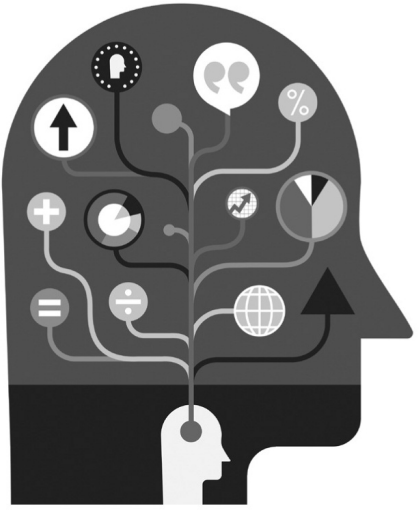


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The Industrial-Organizational Psychologist

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A MESSAGE FROM YOUR PRESIDENT



Doug Reynolds

Should SIOP move faster on our strategic priorities? I'm devoting my last president's column to an examination of this question, and an upcoming vote of our membership will ask each of us to answer it for ourselves. The balloted proposal concerns a dues increase, and the voting membership must approve the proposal if it is to move forward. I see this vote as a critical step in the growth of SIOP; let me explain why I see it this way.

As a professional association, SIOP currently provides many services that help to maintain and enrich our membership at all levels. Vehicles such as our annual conference, the *IOP* journal, the website, and this publication serve to educate us and enhance the ties that bind us together as a profession. These are just a few of the most prominent examples. Membership survey data show these services to be perceived very positively by a large majority of us. These services are supported by a small and extremely effective administrative office. We are fortunate to have them. Our current revenue structure, consisting of a mix of conference fees and membership dues, pays for the staff and these services. We keep a balanced budget and often have a little bit left over to support a couple of small strategic projects or additional services each year. SIOP is conservatively managed and financially healthy.

There are just two issues with our finances. First, they don't provide much flexibility to support the many special requests that come to the Executive Board (EB) each year. Second, our revenue structure is unbalanced, with too small a percentage contributed by member dues; I will return to this second point later. The first issue is paramount in my view because it's the new projects that are designed to advance our strategic objectives. (See siop.org/reportsandminutes/strategicplan.aspx for a list of these goals.)

Project funding requests come from many directions, and the majority of them are good ideas that our member–volunteers see as vital for the advancement of some aspect of the field. Proposals that come to the EB are carefully constructed and promoted by SIOP members who have deep passion for the issues they seek to address. It's not uncommon for the member or committee chair who put the energy into the proposal to come to the Board meeting in person to present the idea. Often the energy is contagious, as the Board sees the value behind the idea.

And then a cold reality sets in…if the request requires funding, there is usually very little room to support it under our current revenue structure. The chill leads to suggestions that perhaps the idea could be accomplished in smaller phases, over a longer period of time, or with volunteers instead of

professionals, and so on, to reduce the cost. Unless expectations have been clearly set ahead of time, the members who have the most passion for the original ideas often feel let down. A past president once described this recurring pattern as similar to a balloon being inflated as interesting proposals gain energy, and then they are squeezed down by the EB, slowly being deflated until they are a weaker version of their former glory.

The real issue here is not just that we are disappointing members who have good ideas for new projects. Rather, the fact is that these newly proposed projects are most often focused on the things we need to do to advance SIOP's strategic goals. The recent membership survey showed that many members feel that SIOP should be doing more to advance these goals. Some of the lowest rated items on the survey involved satisfaction with our advancement in the areas of visibility to business (46% satisfied), visibility to others areas of psychology (51% satisfied), and advocacy of our science (52% satisfied). Compared to satisfaction levels with our traditional membership services such as *TIP* (89% satisfied) and the website (80% satisfied), satisfaction with progress on our strategies rates quite low.

This is a problem we can fix. Over the course of the past year, our newly empaneled Strategic Planning and Policy Ad Hoc Committee, building on the work of our past financial officer **Mort McPhail,** took a close look at the structure of our revenue sources and recommended adjustments. A subcommittee of the EB (**Tammy Allen, Kathleen Lundquist,** and **Eric Heggested**) developed several models for how we might adjust the dues structure, and after input from the full Board, a proposal was developed for member consideration.

The SIOP Bylaws allow the Board to enact small increases in member dues as needed without a member vote; larger increases require approval of the membership. Some options the subcommittee put forward would have required multiple small increases across several years. Another option addressed the issue more quickly and required a vote of the membership. There was agreement among the Board that we should recommend the larger increase and bring the issue to the membership at large for their input. In January, the Board approved a proposal recommending that member dues be set at $100 and retiree/student dues at $50. This represents a $31 dollar increase for members and $15.50 for others. A comment period began when the proposal was announced in late January, and the vote will likely be held during the month of April.

As of this writing, some 1,495 people have viewed the article describing the change, and 33 comments have been submitted. Some commenters wondered about exactly how the funds would be used if the dues restructuring proposal is passed, a good question that I answered online and one I will address here also.

The funding will be used to support future projects of strategic importance to the Society. If funding is approved this year, the projects we have in motion now will be first in line. Examples of these efforts include:

- *Research and development to support a rebranding effort for SIOP.* This project is focused on improving the manner by which SIOP represents itself and the field to external audiences such as the press, business, government agencies, and university administrators. I wrote about this project in my January 2013 column.
- *Advocacy support.* We have an effort underway to add both internal and external support to promote I-O science and practice in the federal sector. Examples of this work will be to place more I-O psychologists in federal advisory committees and as witnesses in congressional hearings on workplace issues. The effort will advocate for more grant funds for our science and monitor legislation that affects our practice. This project has been evolving slowly for years and can't move to the next phase under the current revenue model.
- *Relationships with partner organizations.* In recent years we have established ongoing connections with organizations such as the United Nations, the Association of State and Provincial Psychology Boards (ASPPB), and the Federation of Applied Brain and Behavioral Sciences (FABBS). Each of these has new costs associated with sending our liaisons to meetings related to the licensure of psychologists while ensuring the unique needs of I-Os are recognized (ASPPB), with joining other associations in science advocacy (FABBS), and with promoting I-O internationally (UN).
- *Job analysis of I-O work.* This is another project that has been proposed over the course of several years, and we have finally embarked on the initial phase of work. The results will inform education and training standards and help to differentiate us from other areas of psychology, when positioning ourselves in discussions about licensure and certification, for example.

In addition, later pages in this issue describe an emerging project to establish a dialogue with the EEOC regarding contemporary selection practice. This is another example of an opportunity that will likely need funding to support meetings on the endeavor.

These projects will help to extend our influence as a profession; they need to be supported if we are serious about our strategic objectives of being a visible and strong advocate for the field. If the proposal passes, by the time additional funding is available, new projects will surface to add to this list. The issue is not the support of one project or another; it's about providing SIOP with the budget flexibility to execute projects that allow us to advance our strategy.

If the proposal is not supported, there may still be a need to raise dues. As mentioned above, under our current revenue structure, dues make up only about 20% of our total revenue, and this is less than what is needed to sustain our operations. Other sources of revenue, such as conferences, workshops, publications, and other fees provide the balance of what is needed, but these sources are more variable from year to year and are thus difficult to use when planning for long-term projects. In addition, operating costs continue to rise and the demand for increased services continues. Twice in the past few years

the Board has asked our standing committees to cut their budgets in order to balance the budget. The Board will likely need to enact smaller dues increases over a longer period of time if the larger increase is not supported. Although many thoughts and ideas are being discussed to increase SIOP's revenue, a more appropriate dues structure is a key part of the overall strategy.

The Board does not approach the issue of dues increases lightly. Analysis and debate on the issue has been ongoing since last spring. After careful consideration we decided the best thing to do was to recommend an approach that would ask the membership to voice their support. Should SIOP accelerate progress on our strategic goals? If so, we need to approve the funding to help move us forward. I will be voting "yes."

See you in Houston!

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And We Bid You Goodnight

Lisa Steelman
Florida Tech

It has been my honor and privilege to serve as editor of *TIP* for these last 3 years. I have had the distinct pleasure of working with a team of dedicated professionals who are willing to invest a great deal of time and energy to *TIP* each quarter.

My goals for *TIP* were to maintain the high quality achieved by previous editors, increase the coverage of topics and discussions, and ensure SIOP is accessible to all members through information dissemination and ensuring that contributions to *TIP* come from all realms of the field. We started two new columns, **International Practice Forum** to increase coverage of international I-O issues, and **Yes You Can! I-Os and Funded Research** to educate readers about strategies and opportunities for I-O funded research. We also brought back **The High Society** because I believe we can be serious AND have fun at the same time.

TIP has long been considered a benchmark for APA division newsletters and my final goal was to not mess that up. The credit for *TIP's* high quality goes directly to all the *TIP* contributors and editorial board members. Many, many thanks to *TIP's* stellar editorial board members over the last 3 years:

Alex Alonso
Joan Brannick
Stuart Carr
Rich Cober
Satoris Culbertson
Marcus Dickson
Eric Dunleavy
Lori Foster Thompson
Tom Giberson
Alex Gloss
Art Gutman
Milt Hakel
Scott Highhouse
Tracy Kantrowitz
Paul Levy
Jamie Madigan
Kevin Mahoney
Suzanne Miklos
Paul Muchinsky
Chad Parson
David Pollack
Rob Silzer
Ashley Walvoord
Mo Wang
MK Ward
Liu-Qin Yang
Stephen Young
Mike Zickar
The TIP TOPICs crews from Penn State and the University of Akron, especially **Allison Gabriel**

Thanks to the SIOP presidents I worked with over the last 3 years: **Eduardo Salas, Adrienne Colella,** and **Doug Reynolds** for your support and counsel!

TIP's review board provides an important service as the peer review for *TIP's Feature Article* section. Thank you for your thoughtful input!

Brian Cawley
Satoris Culbertson
Jason Dahling
Jim Diefendorff
Eric Dunleavy
Art Gutman
Rich Griffith
Erin Richard
Sylvia Roch
Chris Rosen
Evan Sinar
Thomas Stetz
Stephen Young

I would also like to commend and thank the SIOP Administrative Office. They are dedicated professionals and all around good people. *TIP* would not be what it is without the efforts of Jen Baker, Clif Boutelle, Stephany Schings Below, and of course Dave Nershi. Thanks!

I have been very fortunate to have been editor of *TIP*. I've met great people and learned many things!

Every New Beginning Comes From Some Other Beginning's End

I am pleased to announce that the new editor of *TIP* will be **Morrie Mullins**. Morrie received his PhD from Michigan State and is currently in the Psychology Department at Xavier University. Morrie was selected to lead *TIP* based on his vision of *TIP* in the electronic age and his approach to how the publication can take advantage of and incorporate the many design and technology features available. Welcome Morrie!

TIP is first and foremost a publication of SIOP by SIOP. Your input and suggestions are welcome and valuable! You can reach Morrie at mullins@xavier.edu. I would love to continue to hear from you too: lsteelma@fit.edu.

It's the End of the World as we Know it

This is it, the last printed *TIP. TIP* will move to an all-digital format starting in July 2013. You will still see the same features, editorial columns, and news you have come to expect, but you will see it in an enhanced digital format. You will see full color, more photos, embedded video, and weblinks.

We've got a great issue for you as we end this era and move into the digital age. First, for you nostalgic history buffs, we've prepared a piece that traces the history of *TIP* back to its beginnings in 1964. You can read about how *TIP* fit in to the I-O zeitgeist from the words of many of its previous editors. The article is called "Making History: The Evolution of the Industrial-Organizational Psychologist."

It seems that everyone wants to be all digital. Tracy Kantrowitz and **Sara Gutierrez** provide a comprehensive article on test security in unproctored Internet testing. They discuss information and best practices for developing and administering tests more securely, investigating security breaches, and taking action against cheaters.

David Fortney, Judith Kramer, and Burton Fishman, lawyers based in Washington D.C., share with us their vision of what the future holds for the

enforcement of equal opportunity in the nation. They discuss predicted intensification of activity by both the EEOC and the OFCCP.

We are also looking to the future of I-O psychology with a report from a survey conducted by the visibility committee, and written by **Mark Rose, Elizabeth McCune, Erica Spencer, Elizabeth Rupprecht,** and **Oksana Drogan**. The purpose of the study was to provide a baseline of current awareness of two "brands," I-O psychology and SIOP, among business and HR professionals. The results of the study have some interesting implications for increasing awareness of I-O and SIOP.

Are employees more unhappy now than they were 50 years ago when *TIP* was first published? **Nathan Bowling** conducted a study that compares mean levels of job satisfaction over time. His analysis of archival data contradicts the popular notion that job satisfaction has declined over the years. Is this a case of the more things change the more they stay the same? Read Nathan's article and see what you think.

SIOP and I-O psychology are taking our compassion globally, thanks in large part to the efforts of **John Scott** and **Herman Aguinis, Ishbel McWha, Deborah Rupp,** Lori Foster Thompson, and **Sean Cruse**. SIOP has joined the UN Global Compact—and so can you! Their article shares information on how you and your organization can make an impact. It's a great initiative, I urge you to take a look.

Rob Tett, Benjamin Walser, **Cameron Brown, Daniel Simonet,** and **Scott Tonidandel** present installment #3 of their graduate program benchmarking study. This one deals with curriculum and competencies. The data presented in these reports are great benchmarking information for programs to use as they strategically plan for the future of graduate training in I-O. What a great service to the community!

What is the future of I-O consulting? Is it possible for I-O consulting to be all online? **Lynda Zugec** says yes. She shares a piece about a recent survey that suggests the demand for online consulting services is steadily increasing.

The editorial columnists took my challenge to look back and/or forward in their last printed *TIP* column with great results. Paul Muchinsky (**The High Society**) shares, in a way that only Paul can do, what he has learned through an impactful 40 year career. **Ashley Walvoord** and **Liu-Qin Yang's Yes You Can** column focuses on military grants and contract through interviews with a successful grantee (Eduardo Salas) and grantor (**Jay Goodwin**). Stu Carr wraps up **Quo Vadis** by looking back on the impact of his column on humanitarian and prosocial I-O. Kia ora! Tēnā rāwā atu koe! The **International Practice Forum** (Alex Alonso and Mo Wang) looks back at the early global collaborations of work, industrial and organizational psychology. **Milt Hakel** and C. J. de Wolff take us down memory lane by sharing a few moments where I-O psychology went from an amalgamation of local and national communities of practice to an international community of

researchers and practitioners. **The Spotlight on Global I-O** (Lori Foster Thompson, **Alexander Gloss,** and **MK Ward**) highlights I-O psychology in Papua New Guinea through the eyes of guest columnist Leo Marai.

Did you know that to the entering class of new freshmen, history has always had its own channel and the Green Bay Packers have always celebrated with the Lambeau Leap? Tori Culbertson's **Academics' Forum** discusses "outdated" cultural references in the current classroom where students Facebook, Google, and Tweet things. Marcus Dickson **(Max. Classroom Capacity)** muses about people's resistance to online content, including online *TIP* and online textbooks. In **TIP TOPICS, Mary Margaret Harris** and **Kimberly Hollman** take on a top 10 list (do you suppose they've ever watched David Letterman?) of trends in I-O psychology with a focus on technology. Art Gutman and Eric Dunleavy's **On the Legal Front** summarizes highlights from 13 years of legal rulings. Wow, what a wealth of information! Thanks to Art and Eric for reading all that stuff for us for all these years. Rob Silzer and Chad Parson (**Practitioner Perspectives**) continue their report on SIOP member data. This time around they report on historical trends in SIOP membership, graduate education, and member satisfaction as they have been reported in *TIP* over the last 25+ years. In the **Practioners' Forum** (Tracy Kantrowitz), guest columnists Eric Dunleavy and Rich Tonowski provide important information on a new task force: the Task Force on Contemporary Selection Practice Recommendations to EEOC. This is an initiative to encourage and promote dialogue between SIOP and EEOC. In the **History Corner,** Kevin Mahoney writes about the impact of the GI Bill on I-O psychology. Tom Giberson and Suzanne Miklos (**Good Science–Good Practice**) discuss innovation from a number of perspectives and show us how research on innovation can be useful in practice. In the **Foundation Spotlight,** Milt Hakel introduces an innovative and terrific new program, the HRM Impact Award.

In SIOP news, **Tammy Allen** shares a report on the recent SIOP elections. **Eden King** and **Robin Cohen** preview what should be a great SIOP conference in Houston and **Alok Bhupatkar,** Lynda Zugec, and **Donald Truxillo** announce the International Affairs Committee white paper series.

Making History: The Evolution of *The Industrial-Organizational Psychologist*

Lisa Steelman
Florida Tech

The Industrial-Organizational Psychologist (TIP) is an official publication of SIOP. It is published quarterly with the purpose of keeping members informed about the activities of the society, as well as reporting on issues and cutting-edge topics of interest to I-O psychologists. Through the tireless work of countless individuals (*TIP* editors, contributing authors, editorial columnists, SIOP presidents, committee chairs and volunteers, and the talented people at the SIOP Administrative Office among many, many others) *TIP* has admirably served this function since its inception in 1964. However, as I look back over the last 49 years of *TIP,* I am struck the fact that not only does *TIP* tell a story about the present, it also tells us a lot about the past. *TIP* is a record not only of the society's news and top-of-mind issues but also chronicles the history of the society, its events, and activities.

As *TIP* launches into the digital age (*TIP* will be an all-digital format beginning with the next issue, July 2013), I already feel some nostalgia for the comfort of my little *TIP* book. As my work and reference material moved online, I slowly unloaded all my physical journals. However, I inexplicably (at the time) retained my copies of *TIP*. I still have almost all my *TIP*s, going all the way back to when I was a student member of SIOP (a few years ago). Now I understand that I saved my *TIP*s because they are my connection to the profession and society I identify with. As editor of *TIP* I have had the honor of meeting and communicating with a multitude of SIOP members—many passionate people who care deeply about I-O and SIOP. As I reflected on the ending of my tenure with *TIP* and the advent of *TIP*'s digital form, I suspected that previous editors have had similar feelings and impressions. So in the truest and cheesiest tradition of end of the year reflections (think "top-10 news stories of 2012"), I undertook a brief historical review of *TIP*.

As *TIP* begins its new digital era I look back over the last 49 years of SIOP through the eyes of *TIP* and the words of its former editors.

Everything Old Is New Again

Division 14's first newsletter was published in June 1964 (14 pages!) under the guidance of S. Rains Wallace, then Division 14 president. The Executive Committee at the time announced that the guiding principle for *TIP* was that it "should not be another publication in competition as it were with other publications of a technical nature, but that rather it should be an organ containing some expression of the problems and aims of industrial psychologists in their roles professionally as psychologists." In the words of Wallace, *TIP* will help us "talk more to each other and give us more to talk about."

TIP's first managing editor was **Robert Perloff** (1964–1965), by a vote of the Division 14 Council, and I'm told it took 9 months to get the first *TIP* published! Early *TIP*s published proceedings from Executive Committee meetings, convention programs and proceedings, committee reports, information about various graduate programs, research notes, and professional notes.

John Boulger took over as editor of *TIP* in November 1965 (1965–1972). His first issue of *TIP* was a whopping 72 pages! Issues discussed in these early years included: licensure, education and training in I-O, validation, Title VII, salary surveys, the gap between science and practice, the low level of prestige and visibility of I-O psychology, even humor pieces. Sound familiar? Even in its early years *TIP* had an interest in international applications of I-O psychology and printed letters from Great Britain and Greece, among others.

Art MacKinney stepped in as editor in 1972 (1972–1976). He was responsible for a "new look" to *TIP* and began a regular column called **Notes and News** that reported on the comings, goings and doings of SIOP members. Art continued to be a great treasure to SIOP and *TIP* for many, many years!

In 1976 **Mike Kavanagh** became editor of *TIP* (1976–1979); his editorial column was called (after a contest and several clever ideas) **Inbasket *TIP*-BITS.** Mike established editorial positions around regular content-oriented columns as a way to "increase ownership of *TIP*." These columns included: labor-management relations (**Tove Hamner**), EEO issues (**Jim Sharf**), I-O psychology in Canada (**Gary Latham**), and organizational development (**Marshall Sashkin**). During these years *TIP* also published profiles of well-known I-O psychologists and started selling advertising space. Mike's last issue of *TIP* had several missives scattered throughout, such as "Hire the Morally Deficient." Who said I-O psychologists don't have any fun?

The next editor was **Sheldon Zedeck** (1979–1982), who continued to expand the content of *TIP*. He consciously positioned *TIP* as a vehicle for dialogue and exchange of ideas and views. He understood that as *TIP* chronicled the division's events and activities it would ultimately reflect the historical development of the division and the field of I-O psychology. His editorial column was called **14 *TIP*BITs**.

Ann Howard took over as the first female editor of *TIP* (1982–1984), although I am quite sure that Ann broke ground as the first woman in a great many things. Her editorial column was called ***TIP*BITS**. No "14". During Ann's tenure Student Affiliates began to receive copies of *TIP*!

TIP the Old Fashioned Way

I edited *TIP* between November 1982 and November 1984. Thirty years ago…Yikes!

My first edition began with some exciting organizational announcements. Our bold group of I-O psychologists had progressed beyond APA Division 14 into our own Society. Irv Goldstein described the road to incorporation and announced our new name. *TIP* included the articles of corpo-

ration, paid tribute to our attorney, and presented our new logo. A later *TIP* noted that based on a prescient poll of members, the first SIOP convention would be held in Chicago in 1986. Also announced was the employment of our first administrative assistant, Deborah Evans, who was housed at the University of Maryland.

Many of the scientific and professional issues addressed in the 1982–1984 *TIP*s still resonate today. **EEO Issues** was a regular column, written by Jim Sharf. Internally, there was the disquieting debate about a scientist–practitioner gap.

Enhancing I-O psychology's impact, which draws much of SIOP's attention today, also concerned us then. In the early 1980s the nation was preoccupied with enhancing productivity. *TIP* documented I-O psychology's contributions to this quest, but we were generally ignored in broader circles.

The February 1984 *TIP* covered an event that changed my life. *TIP* announced the government-ordered divestiture by AT&T of its 22 operating telephone companies, breaking into many pieces an organization with more than one million employees. **Manny London** wrote about the interrupted careers of two dozen I-O psychologists at AT&T headquarters (including five SIOP presidents) who had significantly advanced I-O psychology in areas such as assessment centers, behavior modeling training, and test development and validation. I penned another article about the retirement of one of those psychologists, **Doug Bray**, subtly noting that responsibility for his longitudinal research on managers would fall to his "new wife." Our marriage continued until his death in May 2006.

My pleasure in assembling the content of *TIP*, generated by my resourceful editorial staff of seven, was at times overcome by its production problems. For collectors of the print versions, the issues I edited had the baby blue matte covers and crummy type. We struggled to improve production quality, but at heart our problem was old-fashioned technology.

When I took over the *TIP* editing position, my first instruction from then-President **Dick Campbell** was to try to reduce the cost of *TIP*, one of SIOP's largest expenses. This assignment seemed formidable, for under the previous editorship of Shelley Zedeck, the University of California had provided inexpensive printing and free mailing. There was no SIOP office at the time, so I was on my own.

TIP's Business Manager **Ed Adams** pursued more subscription and advertising revenue at the same time that I tried to reduce costs. After seeking multiple estimates, I finally found a modestly priced printer. To avoid the cost of special orders and cutting, I reduced the newsletter to a standard 8 ½ x 11 inch size. The other substantial cost-saving measure was to have my staff at AT&T do the "typesetting."

AT&T had not yet adopted the fledgling personal computers, so preparing *TIP*'s text required my staff to learn to work with mainframe software. Complicating this challenge, *TIP* was becoming too lengthy for

uninterrupted text. I decided to reorganize it into *Features* and *Departments* and to animate it with more extensive use of photographs and drawings, including cartoons to dramatize a story. Unfortunately, these illustrations had to be integrated into the text, a task readily executed now but not so easy then.

The typesetting software swarmed with quirks, partly because the engineers kept altering it without telling anyone. Bolds and italics didn't work the same from one *TIP* edition to another. Tab setting was nearly impossible because the software assumed that every letter was 1/10 inch in size whereas most were much smaller. This task caused so much pain that we considered announcing—much like the housekeeper that doesn't do windows—"we don't do tables." A fallback position was, "When all else fails, cut and paste." Nevertheless my team persisted, and our computer costs eventually dropped by one-third.

Printing *TIP* brought unanticipated disasters. AT&T was still experimenting with the typesetting equipment when we began, and we struggled with fuzzy print and developing microfilm. Better equipment finally arrived, and *TIP* became readable again. The first issue also suffered from the printing company's mad cutter, who eliminated about ½ inch from all our margins. Then there was the sobering experience of bleed-through images when we tried to cut costs by using cheap paper.

The bulk mailing brought another shock. We had no concept of the volume of 3,000 *TIP*s until we saw them all over my living room floor. Or how long it would take to seal, label, band, and bag them until we tried it (five people worked most of one weekend). Or the weight of 3,000 *TIP*S until we put them in a cart that two young women in high-heels struggled to push up a post office ramp.

Thankfully, my team learned from their experiences and took pride in their new skills. I knew they had arrived when *TIP* publication time came while I was in the hospital for major surgery. After bringing the galleys to the hospital so that I could edit and proof them, they carried out the rest of the process on their own. *TIP* went out error-free and on time.

Shortly, *TIP* will move into the digital age. Color! Audio, video, animations! Content you can search, bookmark, share, and link! Many thanks to all the SIOP members who helped bring *TIP* to this apex. And best wishes to Editor Lisa Steelman, the *TIP* editorial board, and SIOP's Administrative Office staff in making the transition. Rest assured, the digital version will be a dream-come-true for those of us who produced *TIP* the old-fashioned way.

Ann Howard

Paul Muchinsky took over as *TIP* editor in 1985 (1985–1986). Paul's goal was to make *TIP* the premier divisional newsletter of APA. This goal was certainly achieved, and then some. During this time SIOP held its first annual

conference. The first conference program was published in the February 1986 *TIP*. The editorial board was now at nine members, and you may be surprised to find out that Paul instituted a humor column during his tenure.

I was the editor of *TIP* in the mid-1980s. The president of Division 14 (pre-SIOP) at the time was **Ben Schneider**. He asked me to be the next editor following Ann Howard. Ben said Ann would train me how to be the editor. At the time Ann worked for AT&T in New York City and I was in Iowa. I felt like Homer Hayseed flying to the Big Apple to learn all about this big city stuff. Organized as ever, Ann explained how to put together an issue. She had it broken down into about 10 steps, but I got lost around Step 3. Ann had been using the corporate resources of AT&T to produce each issue. In addition to being the editor, I was supposed to find a printing company along with mastering how several thousand copies of each issue would find their way into the hands of our members. Long story short, I found a cost-efficient printer and distributor about 200 miles from my home. *TIP* went from being printed in downtown Manhattan to a town in Iowa that didn't even have one stoplight. The Internet hadn't been invented yet. The thought of "losing" an entire issue of *TIP* material in the mail made me nauseous, so every 90 days I drove to the printer with a folder full of typed manuscripts, each submitted by a contributor. I was hand-delivering what would be the spring issue on a blustery day in late December. The temperature dropped to 10º below zero and it started to snow like hell. I remember making some unflattering comments about Ann and Ben, and thought about demanding they double my salary as editor.

Ben said he wanted *TIP* to look like something that would resemble a coffee table book. At the time *TIP* was a black-and-white affair printed on regular paper. I was the first editor to use color on the cover and semigloss paper. Each issue looked good, if nothing else. At the time I was greatly contributing to lowering the acceptance rate of manuscripts submitted to journals. Acquiring the power that comes with being an editor was too great of a temptation. So as an author I began to submit manuscripts to *TIP* that as editor I accepted without so much as a R&R. I felt many of my I-O colleagues were a rather serious lot, so I wrote a humor column designed to loosen them up a bit. Leaving nothing to a possible misinterpretation of my writing, I gave my column the unambiguous title of **Department of Humor. The Department of Humor** was the precursor to what has become the universally acclaimed iconic standard of *TIP*, **The High Society**. My columns back then were more bemusing than funny. I also didn't have the nerve 30 years ago to be edgy in my writing. I have subsequently made considerable progress in overcoming that character flaw.

Lisa asked us to describe how SIOP has changed over the years. Keeping with the theme of this column, I will describe it through the lens of *TIP*.

With each editor change of *TIP* (every 3 years), the new editor had to find a printer and distributor. Sometime after my term as editor, *TIP* found a permanent home at SIOP headquarters in Ohio. We can thank **Milt Hakel** for bringing order out of chaos. Sure wish Milt had conceived this brainchild a few years earlier.

In 1973 the name of Division 14 of APA was changed from the Division of Industrial Psychology to the Division of Industrial and Organizational Psychology. SIOP was created about a decade later. Did you ever wonder why "*TIP*" (which stands for "*The Industrial-Organizational Psychologist*") isn't called "TIOP," the linguistic mate of "SIOP?" *TIP* is the last holdover from before we added the "O" to the "I." "*TIP*" snaps off your tongue. "TIOP" sounds like a medical procedure used in performing a semicolonoscopy.

Back in the 1980s *TIP* was branded on its masthead as being the "official newsletter" of Division 14 (soon to become SIOP). I am a member of several organizations that put out newsletters. These newsletters run about four pages. Then we have *TIP*. Under my editorship an issue of *TIP* cracked the 100-page mark for the first time. After me, it hit the 200-page mark, and I believe at some point it might have hit 300 pages. SIOP could win a national competition for having the most news fit to print every 90 days. As far as the "official" part goes, I guess that was provided to clearly position *TIP* in the marketplace apart from the knockoff, replica, and faux I-O psychology newsletters.

Related to the previous point, sometime after my term as editor, *TIP* went from being the "official newsletter" to being an "official publication" of SIOP. Today *TIP* functions as a quasi-journal. I knew *TIP* had become something more than a newsletter when I began to see people list papers published in *TIP* on their vita under the heading "Refereed Journal Publications." Articles currently being published in *TIP* are of such scholarly quality that they are cited in scientific journals. In particular, **Art Gutman's** column keeps us informed of complex legal issues in employment discrimination. I cite his *TIP* columns in my textbook, and quite frankly if it weren't for Art's columns, I don't know where else I would find this material written in such an easily understandable manner. And it's official.

Many years ago Ben Schneider said, "I-O psychologists are industrious and organized." I always liked that expression, as I believe it captures what we are. I saw evidence of that while serving as *TIP* editor, and I continue to see it as a *TIP* columnist. My biggest concern with *TIP* is that every 3 years I have to break in a new editor. I fear one day *TIP* will have an editor who does not treasure **The High Society.** When that day arrives, I'm cooked, because *JAP* won't touch my column (unless it is a meta-analysis of my previous columns).

Paul Muchinsky

In 1986 Paul turned *TIP* over to a new editor, Jim Farr (1986–1989). *TIP* had become a nice looking and well-oiled machine. During this time *TIP* published member survey results, information on the reorganization of APA and licensure issues, international dispatches, and the relationship between scientists and practitioners and perceptions about SIOP initiatives to enhance interaction, as well as the now common programs and conference proceedings. It's true; the more things change the more they stay the same. Jim changed the ***TIP*BITS** column announcing member transitions and general feats of great accomplishment to **IOTAS**. We still use the **IOTAS** column but perhaps many do not know it stands for I-O Transfers, Activities, and Social Events.

The next editor of *TIP* was **Steve Kozlowski** (1989–1992). During this time *TIP* transitioned to its current publication schedule (July, October, January and April) and was stuffed full of articles covering a wide range of topics: testing and assessment, Civil Rights Act developments, performance appraisal, career issues, international articles, education and training, quotas, goal setting, licensure, a conversation with Morris Viteles, training—literally a whole buffet of content articles.

Kurt Kraiger took over as editor of *TIP* in 1992 (1992–1995). Content articles continued to enlighten, memorable columns continued or began (**Vantage 2000, Practice Network, *TIP* Profiles, From Both Sides Now**), and students had a voice in *TIP* with the **Student Network**.

> I was the last *TIP* editor to work with all paper copy. **Mike Coovert** followed me, and I recommended Mike because he had the computer knowledge to figure out how to move *TIP* to electronic submissions. But, I was still receiving contributions on paper. Typically, the day before and the day of the deadline, I would get a dozen or more Fedex envelopes at my office and an equal number at home. (I suppose deadline-driven behavior is a constant.) At that point, it was about 40 hours over 3 days of cutting out the contribution (so I could better estimate column size), laying everything out on the floor, deciding what to accept and what to reject, and estimating total pages. A beneficial side effect of all this was that at one deadline, I was pumping coffee and trying to meet the deadline when my heart rate spiked to over 200 and stayed there. I went to the ER and was diagnosed with mitral valve prolapse, a condition that I needed to be aware of and monitor in later years.
>
> I changed the cover design. The *TIP* cover had not changed from the old black and yellow cover for a number of years. The publisher recommended updating it and sent me a set of fairly simple geometric designs to choose from. It was very nerve wracking making the decision to change the cover—it simply wasn't done!
>
> *TIP* was a labor of love, as I am sure all other editors have found. And, with the possible exception of serving as president, nothing has brought as many thanks from SIOP members. It was also something

I wanted to have fun with and to personalize. I still hear comments about my "SIOP Dress Code" paper (published by Mike Coovert). As *TIP* Editor, I had fun with the **IOTAs** column. I would often make off-the-cuff comments about famous SIOPers. For example, I once noted that I wasn't saying that **Neal Schmitt** and Dick Cheney were the same person, just that no one has ever seen them both in the same place at the same time. Later, I wound up simply adding personal notes at the end of the column. In one, I talked about a great comeback by a little league team I was managing, and in another I announced that my wife and I were expecting our first child. I guess I figured that if *TIP* was going to put me in the ER, I could use it to announce personal milestones!

Kurt Kraiger

Under the next editor, Mike Coovert (1995–1998) *TIP* got a home page on the "World Wide Web" and began electronic submissions. **Phil Craiger** wrote a column with tips on how to use the Internet and World Wide Web.

TIP Enters the Digital Age

I remember with great fondness my tenure as *TIP* editor. **Wally Borman** was elected president and asked me to consider the editorship. I jumped at the chance and fortunately the Executive Committee agreed and confirmed me. Shortly thereafter I found myself heading out to Colorado to spend the weekend with Kurt Kraiger, who was the outgoing editor. Kurt had done a great job with *TIP* and had everything well organized and the transition went smoothly. I remember bringing boxes of material back with me as I left the snow of Denver to return to the sun and warmth of Tampa to begin work as the society's newest editor.

During my tenure SIOP's office was run by Lee Hakel, and WOW, did she know how to get and keep the society organized. She was always there when something was needed. And if there was a problem, Lee was always part of the solution. I remember many times during Executive Committee meetings when one or more committee chair was having difficulty, Lee would offer to take on the problem and find the solution. That was the case for *TIP* as well.

I was very fortunate to have an editorial board that was prompt and efficient. They (almost) always got their information in on time. I also got some local talent involved. Phil Craiger and **Jason Weiss** started a column on technology and its use. That column continued for several years after my departure. **Lori Foster Thompson** and **Dawn Riddle** were tapped to write the student column and they also continued beyond the original 3-year commitment.

Personally, I am very proud of helping to bring the society into the digital age. My first act as editor was to transition to an electronic submission process and to have an online version of *TIP* that was available.

Now remember, this was in 1995 and not everyone on the SIOP Executive Committee was as tech savvy as are the members today. I enlisted the help of Phil Craiger, and we got the issue on line (hand coded in HTML!) and available for the Executive Committee to view. Quite frankly, many of them did not have a clear picture of what we had done. I remember giving my report at the Executive Committee meeting and concluding with something like "the issue you have in your hands is also available online and I would like to show it to you." I had them all get up as we had to go down the hall to another room with an Ethernet port. We had a computer plugged in and the issue up. After a quick demo most of them understood the power of making our newsletter available in this format to everyone on the web. Milt Hakel jumped in and helped transition many other informational sources to the web and I believe is the vision behind today's SIOP website.

Mike Coovert

Allan Church (1998–2001) was the next editor of *TIP*. Again, continuous improvement on a good thing with more news, information, and satire. And you may have noticed that Allan was never at a loss for words! I remember reading Allan's columns thinking, wow, he sure has a lot of time to reflect and then write about it. How can I get some of that time?!

Reflections From a Former TIP Editor

For me, being a past editor of *TIP* is a similar experience to working for a consumer products company. Every time I browse through the latest issue I feel an immediate direct connection and almost personal loyalty to the *TIP* product and brand. As a result, it has been very interesting for me to watch how each new editor over the years since my tenure has put his or her own individual stamp on one of SIOP's most prized publications. When Lisa sent out her call for comments from former editors for this special issue, the last one in print, I was curious to see what stories might come to mind and which of those I would be willing to share more broadly! So listed below are some general reflections on my time with *TIP*. Warning: For those who might know (or remember) me, I am generally not at a loss for words.

I got my first introduction to *TIP* in 1994 during Kurt Kraiger's editorship. I remember seeing his open call for submissions (or was it a plea?), and after careful consideration I sent him my ideas for a new column. The concept was to follow the relatively new debate format being showcased at SIOP's annual conference but using well known academics and practitioners focused on what I thought were "hot topics" in I-O and OD. I remember Kurt emailing me back and encouraging me to try out the idea, and if it worked and I could get people to actually respond in a timely manner, he would run with it. Four years, 16 columns (never missed an issue), and 55 different contributors later I was operating like a well-oiled machine. Because of my experience with *TIP* I had developed

a great new network of contacts, learned the discipline of writing a quarterly column, had the opportunity to contribute something to the ever evolving scientist–practitioner debate in the field, and had fun doing it! And then Mike Coovert called and asked me to take on the editor role.

I remember when Mike, who was *TIP* editor after Kurt, and I met to discuss the transition. I flew down to the University of South Florida and met with him, Lori Foster Thompson, and Dawn Riddle (at the time our stellar ***TIP*-TOPics for Students** columnists—how times have changed!). Although we had a great discussion and Mike was a fantastic host, I must admit I was a bit overwhelmed at the time. After all, he was an established professor with support from his institution and help from his graduate students. I, on the other hand, was a full-time practitioner (and a consultant no less) without the benefit of even an intern at the time. At least I knew I could rely on my own Microsoft Word skills (which in those days was the preeminent document formatting tool before the actual typesetting process). Despite the challenges, however, I was very intrigued and excited by the rules of engagement that had been presented to me and the ability to shape my own editorial policy and guide *TIP* to new heights of glory for the next 3 years. It was like someone had handed me the keys to their Maserati.

So what did I do when I got back home to New York? Like a geek I went to our firm's library (I was working for Warner Burke during those years, and he had a conference room/library with wall to wall journals) and read through all of the old back issues of *TIP* I could find. I wanted to see what other editors had tried before, what had worked and what had gone splat. The range of content, formats, and approaches over the years actually surprised me. Some editors had taken the role quite seriously and even tried to move *TIP* in the direction of a formal journal with a peer reviewed section, whereas others had gone the opposite way and focused on a purely casual and informal style. Regardless of the approach taken, however, two points were very clear to me: (a) the care and feeding that went into each of the issues, and (b) the steady evolution from a light newsletter concept (similar to what many other professional associations still have even today) to a well packaged and highly professional booklet that truly stood out as a unique publication. In many ways *TIP* had evolved to become the face and voice of SIOP.

This realization made the task ahead even more exciting and suddenly more anxiety provoking as well. How would I be able to live up the high standards that had been set by my predecessors? Would my practitioner ideas fall flat because of my lack of knowledge of the formal publication process? I didn't even know that I needed to change the cover design to coincide with the change in editorship. Would I be the one to let SIOP down? And then Lee Hakel at Bowling Green came to the rescue! Lee's support and assistance was invaluable in getting *TIP* out the door each quarter. She handled so many of the detailed aspects of the process (and SIOP's main office

at the time for that matter) that I can honestly say it would have been impossible to have delivered *TIP* on time or with any quality at all without her.

So needless to say it all worked out. Apparently writing and editing are in my blood. As a fifth generation member of one of the last family owned newspapers in New England, I was now the editorial page editor and editor-in-chief of a great publication. Over the next 3 years I focused on achieving my goal of establishing balance in the content of *TIP*. This translated to (a) having science and practice based columns so that the publication would appeal to both sets of constituents, (b) having a mixture of informal news and professional articles that offered new/unique content so that *TIP* was seen as a viable outlet for certain types of work, and (c) retaining that professional look and feel but also introduce a bit of fun and humor into the mix. I-O psychologists are known for their divergent opinions and as might be expected the feedback I received during my time as editor was no exception. Some of the comments included:

- "*TIP* should have a peer reviewed section for original research endorsed by SIOP"
- "Remember *TIP* is not a journal, it is first and foremost a newsletter"
- "Satire has no place in *TIP*, it is a professional publication" and
- "Please bring back the crossword puzzles"

In the end, while some of the ideas worked well and some perhaps less so, the editorial board and I had fun trying new concepts and formats, some of which carried on far beyond my tenure. In sum, it was a fantastic learning experience, and hopefully I made an impact and a contribution somewhere along the way. Now some thank yous to those who helped me along the way. Thanks first to Kurt for the big break with my column **From Both Sides Now,** Mike for the encouragement and coaching to take over the editor duties, Warner for his support and proving the flex when needed to deliver each issue on the work front, my illustrious editorial board (i.e., J. Philip Craiger, **Michael Harris, Karen May, Steven Rogelberg, Janine Waclawski,** Lori Foster, **Charmine Hartel,** Dawn Riddle, **Dirk Steiner, Kim Hoffman, Suzanne Vu,** Art Gutman, **Steven Katzman,** Paul Muchinsky, **Mark Griffin, Boris Kabanoff,** and **Tom King**) for their tireless efforts and contributions, the SIOP leaders at the time of putting up with my persistent and annoying requests for their reports, and last but not least Lee for all her help in getting every issue over the finish line. I couldn't have done it without you all!

In closing, as I said earlier, it's been fun watching *TIP* continue to evolve. Having been in on the discussions (ok, heated debates) over the years as to whether or not *TIP* should become an all online publication, I think the time has finally come to move forward with our flagship publication. I am very excited about the future prospects of *TIP* and look forward to seeing it continue to evolve to new heights.

Allan Church

Debbie Major (2001–2004) came next, and what can I say? Debbie says it so well.

When nominated to become *TIP* editor in 2001, I remember feeling both honored and reluctant. I had a lot going on between my career at Old Dominion University and my 2-year-old son at home, and I understood *TIP* to be a lot of work. I'd heard stories from Steve Kozlowski and Kurt Kraiger about the time and effort involved in putting together *TIP* as a physical book. Allan Church assured me that times had changed and that the SIOP Administrative Office handled the "construction" issues associated with printing. Still, I felt reluctant for the same reason I felt honored. It seemed to me that, other than our annual conference, nothing better represented SIOP or was more appreciated by SIOP members than *TIP*. I was excited to be a part of it, but I didn't want to mess it up.

Emphasizing the role of editor as "steward," I committed to keeping *TIP* on the cutting edge and to ensuring that it offered something for everyone in SIOP's diverse membership. Toward that end, in addition to continuing long standing favorites, I introduced six new columns during my 3-year term, including: **Peter Bachiochi's On the Horizon, Leading Edge** by Jason Weiss, **A Matter of Difference** by **Bernardo Ferdman** and **Martin Davidson, Education and Training in I-O Psychology** by Laura Koppes and **Neil Hauenstein, Bill Macey's The I-O Ethicist,** and **Frank Landy's What I Learned Along the Way.** I began the tradition of including columnists' photos, which subsequent editors have continued. In looking back at my inaugural column I can see that I was quite enthusiastic, given my liberal use of exclamation points; it's an enthusiasm that appears to have continued throughout my term!

Gail Nader in the SIOP Administrative Office came up with several cover design choices, and I opted for an all black cover with just a splash of color. Although the novelty really appealed to me, I'm not sure everyone felt the same way. I recall receiving an e-mail referring to it as, "*TIP* 2001: A space odyssey." I wish I had come up with the idea of having a photo grace the front cover introduced by **Wendy Becker**. (I was so happy to contribute a cover photo for the October 2007 issue.) I'm hoping that electronic *TIP* will be even more photo filled.

In reflecting on *TIP* for this last print issue, it strikes me how well it captures our history, for SIOP certainly, but also in a broader sense. Perhaps the most notable examples are found in looking back at the aftermath of 9/11. SIOP members responded in many meaningful ways that are captured in the pages of *TIP*.

I'm proud to have been a *TIP* editor and continue to be pleased (and not at all surprised) when SIOP surveys show that *TIP* is one of the membership benefits that people value most.

Debbie Major

Laura Koppes Bryan (2004-2007) took the wheel in 2004. Under Allan, Debbie, and Laura, *TIP* really came together with the current organization of (a) feature articles, (b) editorial columns, and (c) news and information.

> I was honored and thrilled to be named the *TIP* editor. When I assumed the role, I had begun my Fulbright grant in the Czech Republic. Lee Hakel and I were fairly certain that the first issue I prepared was the first issue to be edited from overseas. Fortunately, the university where I taught had great Internet access; everything had to be completed online. And although we could create the issue online, we constantly had to envision the print version. I remember having to convert the number of words and pages from the online version to the printed version and hoping we stayed within the page guidelines. It was fun and challenging to prepare the issues while in the middle of adapting to a different culture and dealing with different time zones! The best part of being *TIP* editor was collaborating with dedicated colleagues who were committed to making every issue a success. I met many wonderful individuals and learned a lot about I-O psychology. I am grateful to have served SIOP in this role.
>
> *Laura Koppes Bryan*

Wendy Becker (2007–2010) was the next editor and the cover photos were her inspiration. These photos reflect just some of the many other talents of SIOP members. It's a shame we only had space for one photo every quarter. Hopefully in the new online format *TIP* will be able to continue to showcase the creativity of the society, along with the I-O-related information we have come to expect.

> My memories editing *TIP* (2007–2010) are bittersweet. Those were busy years spanning two very different jobs (SUNY and Shippensburg) and much international travel. Every issue was thrilling but I also had to break some hearts—not everything is the right "fit" for our tiny news journal.
>
> When asked to step into the giant shoes of Laura Koppes Bryant (not literally, Laura is really quite petite) I did my due diligence and asked SIOP friends whether or not I should do it. Frank Landy said it would be one of the best experiences of my life (thanks Frank, you were right). Milt Hakel reminded me that SIOP servant leaders are what make our profession great (so true). Jim Farr recalled his years editing *TIP* with fondness. **Gary Yukl** advised me without hesitation to do it. **Mike Burke** (just starting his editorship of *PPsych*) encouraged me to say yes. **John Mathieu** told me I was crazy, so I jumped in!
>
> My fondest memories are the new friends—such wonderful and faithful columnists—so many unique contributors. One of my favorites (with arguably the best title) was the transcription we did of Steve Kerr's keynote address at SIOP: "Some Random Thoughts on False

Dichotomies, Common Coffeepots, and the Portability of Knowledge" (October, 2009). What an honor to work with four SIOP presidents during my tenure—**Lois Tetrick,** Gary Latham, Kurt Kraiger, and **Eduardo Salas**—thanks for always meeting (well, almost always meeting) your deadlines. And what great people in SIOP Admin. I worked closest with Jen Baker and Clif Boutelle—but everyone in Bowling Green works so hard—you make our profession stronger.

Funny, the thing I remember most about editing *TIP* is the decision to use photos for the cover. I stole the idea from Denny Gioia, who gave me copies of his photos from *Administrative Science Quarterly.* Denny was so damned proud of those covers! I wanted *TIP* to show not just the intelligence but the creativity of our members (and staff), so I asked people to send in photos for my first issue. **Rob Silzer** sent a photo of Central Park—so appropriate because SIOP had just convened in New York City. It was an immediate hit. To this day, people with their photos on a *TIP* cover swear it is the publication that makes them most proud.

My toughest issue was my last because we decided to do a special tribute to Frank Landy. Looking back, that issue (April, 2010) serves as my most proud legacy as editor of *TIP*.

And then I passed the torch to the very capable Lisa Steelman. I know Art Gutman had a lot to do with convincing Lisa to come aboard. Thanks again Lisa—and also for the opportunity to walk down memory lane.

Wendy Becker

Coda

There you have it, a 49 year history of *TIP* in the words of several *TIP* editors. It's clear that *TIP* morphs slightly with each new editor, subtly reflecting that individual's personality and SIOP member's needs and expectations of the time. Each *TIP* reports the present while making history. I have no doubt that the next 49 years of *TIP* will continue this grand tradition. In the words of Walt Disney, "The way to get started is to quit talking and begin doing." And so we march on.

Dr. Lisa Steelman
Editor of TIP
January, 2013

Dear Lisa,

We are writing to respond to the recent letters in *TIP* related to the recent Silzer–Parson series of *TIP* articles regarding representativeness in SIOP.

First we would like to thank you for your ongoing support and for publishing our series of data-based articles. We also thank the many SIOP members who have encouraged our work and provided positive feedback on our articles. In addition we want to thank **Dr. Thayer** for his support of fair and "balanced representation of academics and practitioners in SIOP governance"; **Dr. Muchinsky** for discussing the past "restrictive controls" on designating Fellows and the perceptions of SIOP as being "elitist" in its governance and run by an "in crowd" and "small group of power brokers"; and **Drs. Moses** and **Schneider** for noting that there "have been many positive responses to these publications."

The data and findings reported in our articles are very clear. Our analysis has found that SIOP members whose primary employment is in organizations (business, nonprofit, etc) and in consulting firms (nonresearch focused) are significantly underrepresented in SIOP appointments, awards and recognitions, officer positions, and Executive Board (EB) positions. While they represent 50% or more of the SIOP membership, they represent only 0–20 % of these SIOP recognitions. However members who work in academia and in research consulting firms (and represent less than half of the membership) are given 80-100% of these SIOP recognitions. This leads to questions about SIOP's fairness and inclusiveness and why the professional (nonresearch) contributions and work efforts of 50% of the membership are regularly excluded from these recognitions. Members in these excluded groups have expressed their dissatisfaction with SIOP on these and other issues.

Several letters seem to have misconstrued our results and have instead interpreted them as either a personal affront to their self-identity or a divisive assault on the integration of science and practice in our profession. Neither of these conclusions is justified. It is likely that all of us see ourselves as practitioner–scientists, scientist–practitioners or practitioner–scholars. The results do not focus on science–practice integration issues but on how well SIOP and the profession recognizes and values the professional contributions of members who work in organizations and in nonresearch consulting firms. These data suggest that SIOP needs to be more inclusive and balanced in order to serve all members. The issues are related to professional respect, fairness, and representativeness in SIOP recognitions and decisions.

Historically SIOP has strongly favored the publishable research of academics and researchers over professional nonresearch contributions. While no

one questions the value and usefulness of good research, SIOP does not seem to value the nonresearch professional contributions of I-O practitioners who work in organizations and consulting firms (nonresearch). It is widely known that the strong majority of SIOP awards have been off limits to I-O practitioners who do not do publishable research or have numerous peer- reviewed journal articles and journal citations. Similarly SIOP appointments in recent years have strongly favored academics/researchers (getting 80% of the major appointments in 2011 and in some cases 100% of certain designations such as Alliance for Organizational Psychology [AOP] representatives). While these concerns have been evident for a while, change has come very slowly to SIOP in these areas, and the lack of balance, fairness, and respect only serves to disenfranchise more than 50% of the professional membership.

Is SIOP willing to address this lack of representativeness? We are glad to see that the letters support "positive responses" to these issues and that Dr. Thayer calls for proposals to address them. Several years ago as president of the SIOP Foundation, Dr. Thayer noted that "we (the Foundation) know that we do not provide any recognition or support for I-O practitioners, but we do not know what to do." Several suggestions were provided to him at the time and over the last 5 years many suggestions have been put forth, either in numerous *TIP* articles or directly to EB members. While some progress has been made in a few other areas, such as journal research access and the recent refocusing of the LEC on I-O practice, there has been little change in the representativeness in SIOP appointments, awards, recognitions, officer positions, and Executive Board positions.

What are the causes of this lack of representativeness? Some might say that the reward systems for academics/researchers are different from practitioners working in organizations and nonresearch consulting firms, which results in less practitioner involvement in SIOP. While it is likely to be more difficult for nonresearch consultants and organizational practitioners to publish in peer-reviewed journals or spend time on SIOP activities (than academics/researchers who get rewarded by their employers for it), we found that they volunteer for SIOP committees in approximately the same proportion as their membership in SIOP as a whole. So their professional participation is not an issue.

Another hypothesis is that the gatekeepers in SIOP, the folks that Dr. Muchinsky refers to as a "small group of power brokers," control many of the decisions on awards, recognitions, appointments, and so on, and they tend to favor other academics/researchers to a large extent. An additional perspective is that the gatekeepers may have limited understanding of, or respect for, non-research I-O practice. Despite being measurement experts, we have done little to outline ways to evaluate the professional contributions and work of nonresearch I-O practitioners. And because peer-reviewed journal articles and journal citations are readily available measures, SIOP tends to overrely on them for many recognition decisions.

What can be done? There are many ideas that have been suggested in *TIP*. It would seem that the first step might be to ensure that the decision makers

themselves for these appointments, awards and so on are fully representative of the membership. There is no longer any justifiable reason why any decision making group, committee, appointments, or board should continue to be heavily dominated by academics/researchers. Perhaps for some officer and EB positions SIOP should consider regular rotations between an academic/researcher and a practitioner employed in an organization or a nonresearch consulting firm. This would encourage the balance that is needed. SIOP needs to embrace the idea that I-O practitioners working in organizations and in nonresearch consulting firms are full professional members and should be given the same respect, support, and recognition as other professional members. Let's get rid of this perceived two-class system among our members.

In addition SIOP should work diligently to establish ways to evaluate the professional work and contributions of nonresearch practitioners. This would provide decision makers with the objective tools they need to make fair, balanced, and transparent decisions. These and many other suggestions have been made to SIOP in the past; it is long past time for SIOP to finally take real action to address these concerns. Our members expect it.

Briefly, one methodological note. In our analysis we followed a clear and objective set of decision rules on how to categorize members based on their current primary employment setting (and in a small number of government settings on their job title). Almost all members were easily and cleanly categorized based on SIOP membership data. One letter suggests that this objective system should be replaced with self-report measures. However that data would not answer the question at hand. Also, given the numerous problems with relying on self-report measures, we think the objective categorization is the far better option for answering the question that was posed.

The profession of I-O psychology has changed significantly in the last 20 years. Professional work opportunities in business organizations and consulting firms have greatly expanded and that is where a majority of I-O psychology professionals are now employed. I-O practice careers have gone through a major growth period, and this change over the last 2 decades will only continue into the future. Up to 70–80% of graduate students in I-O doctoral programs now express career ambitions to be an I-O practitioner.

SIOP needs to decide if it is willing to catch up to these significant changes in our profession or remain stuck in the out-of-date framework for our profession that is still held, and advocated for, by some senior insiders who defend the status quo. This is an opportunity for SIOP to move into the present state of our profession. Let's all hope for the benefit of our shared profession that SIOP makes that change soon.

Thank you again, Dr. Steelman, for your support in publishing these data-based articles. We are hopeful that SIOP will embrace the need for more balance, fairness, and transparency in decisions and in service to all members.

Respectfully,

Rob Silzer & Chad Parson


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The Security of Employment Testing: Practices That Keep Pace With Evolving Organizational Demands and Technology Innovations

Tracy Kantrowitz and Sara Gutierrez
SHL

Industrial-organizational (I-O) psychologists face unique challenges when determining the security of tests used for employee processes. Consumers of employment testing often need tests to be available anytime, anywhere. In attempts to keep pace with changes in technology, the economy, and business strategy, I-O psychologists have responded to calls for constructing testing programs in line with the evolving needs of organizations. Whereas employment testing once resembled educational and certification testing (i.e., proctored, offline group testing, finite number of administrations), testing in contemporary organizations often takes the form of on-demand, unproctored, online testing with immediate score feedback.

Testing professionals have responded to the evolution of employment testing by conducting research to support the use of tests in the manner organizations desire to use them. Studies on equivalence, norms, validity, and reliability are routinely done, but far less attention has been paid to cheating detection or identifying score anomalies. The effects of a compromised employment test may be far reaching, as the validity for a compromised test comes into question.

In this paper, we (a) highlight employment test security challenges; (b) review best practices for mitigating security risks associated with contemporary uses of employment tests by building a program based on protection, investigation, and enforcement; and (c) discuss future trends in employment testing and how they intersect with test security.

Contemporary Uses of Employment Testing

Employment testing is increasingly characterized as unproctored Internet testing (UIT). The benefits of UIT are clear to organizations, with decreased cost being a primary driver. Companies no longer have to pay for test proctors or computer resources to oversee testing. Nonetheless, unproctored testing carries substantial risks that center around test security. Although we recognize the presence of risks, we believe it is more productive to focus on a research agenda that informs the value, appropriateness, and limitations of unproctored testing.

Research on the risks of unproctored testing has started to accumulate. UIT scores have been found to be relatively stable over time (Beaty et al., 2006). In addition, validation studies using UIT test data shows validity for various performance metrics. In a meta-analysis (Beaty, Nye, Borneman, Kantrowitz, Drasgow, & Grauer, 2011) of accumulated validity data on the same noncognitive tests used in proctored and unproctored environments,

results showed that the validity of tests used in unproctored environments was on par with that from proctored environments. The research literature to date is encouraging that the potential risks associated with UIT may not substantially affect tests' psychometric properties.

Building a Test Security Program

UIT can come in many forms (ITC, 2006) and each form presents increasing security concerns. With supervised testing, there is a level of direct supervision over test-taking conditions. Administrators log in candidates and confirm the test has been properly administered. In controlled mode, a test is administered remotely and made available only to known test takers. Such tests require candidates to log in using a password and username provided to them and often operate on a one-time only basis. Finally, open testing involves no human supervision of testing session with little-to-no registration required by a candidate. We believe that most employment testing is characterized as controlled (for instance, for those organizations that conduct confirmation/verification testing) or open, as many testing programs are exclusively conducted unproctored. This provides an important lens through which to consider test security programs that aspire to mitigate risks associated with unproctored testing.

Tests are increasingly accessible and the conditions under which candidates test are increasingly variable. The need for robust security processes has never been greater to maintain the integrity of professionally developed and validated assessments, testing companies' intellectual capital, and the value derived by companies who use such assessments.

A forward-looking test security program should account for many factors, including (a) the reputational element associated with safeguarding test content and protecting the company brands of test producers and consumers, (b) psychometric considerations associated with building more cheat-resistant tests that capitalize on available technology, (c) enforcing test security breaches through legal means, and (d) having financial support to continuously (or frequently) create new test content to replace content that has been exposed.

These considerations feed into what the testing industry considers to be the pillars of a robust test security program (see, e.g., ATP Test Security Survey Report, 2012), which include programs focused on protection, investigation, and enforcement. The next section describes activities, methods, and recommendations in each area for increasing the security of contemporary employment testing systems.

Protection: Preventing Test Content From Compromise

Protection describes proactive efforts to prevent test content from being compromised. Efforts in this area can be characterized as designing more cheat-resistant assessments or designing processes to minimize the opportunity for cheating. Each is discussed in more detail below.

Building a More Secure Test

Tests vary in their level of security. An unproctored, fixed-form, cognitive ability test is far more susceptible to cheating than a variable length, computer adaptive assessment. Several factors associated with cheating susceptibility are discussed below.

Test Delivery Method

Methods such as computer adaptive testing (CAT) and linear on the fly testing (LOFT) are based on advances in psychometric theory (namely, item response theory) and have been shown to have superior measurement precision (i.e., reliability) compared to traditional fixed form counterparts based on classical test theory, which is a critical consideration when making decisions about candidates' qualifications and competencies (Kantrowitz, Dawson, & Fetzer, 2011). Improved test security is yet another key benefit to these testing approaches, as large item banks support the use of these assessments. Although candidates may be presented with 20 test questions in a given testing session, an item bank of 300 or more questions may exist behind the scenes. In the case of CAT and LOFT, instances of a test question being "leaked" (while treated with the utmost concern) tend to not have a material impact on the integrity of tests as question banks consist of hundreds of questions. CAT and LOFT tests are clearly more secure compared to their fixed-form counterparts, in which candidates uniformly experience the same questions. Furthermore, within a CAT, item exposure can be controlled by setting parameters on the frequency with which items should be administered.

Question Type

Questions with objectively right or wrong answers (typically, cognitive ability and knowledge tests) are traditionally viewed as more susceptible to cheating. Such questions can be practiced if preknowledge of questions is obtained before the live testing event. These questions are also more susceptible to cheating because a proxy test taker whose known (or suspected) ability level exceeds that of the candidate can be obtained to complete a test on a candidate's behalf. In contrast, noncognitive assessments tend to not include an objectively right answer. It is relatively harder for a candidate to determine the "right" answer to a personality item, for instance.

Performance tests have objectively right answers but make it more difficult to cheat. In these tests, a candidate has to demonstrate his/her proficiency for a given skill. In a typing test, for example, the "right" answer involves keying information accurately and quickly. Unlike cognitive and knowledge tests, it is difficult to cheat on a test like this by obtaining the test information before a live testing session. If a candidate is exposed to a performance test in advance and attempts to learn the answers, this may be construed more as legitimate "practice" than "cheating." Nonetheless, the potential for cheating exists by having a proxy with better skill in the particular area to be tested sit the test on a candidate's behalf.

Time Pressure

The presence of a test timer typically offsets some of the potential for cheating. Having limited time to find a right answer or incorporating speed into a test score makes it more challenging for examinees to cheat by using outside resources. In contrast, unlimited time to complete a test may open up the possibility that a candidate seeks outside resources (information, people) to assist in completing the test. Similarly, getting more credit for working faster (and generally, more accurately) means that using outside resources will likely slow a candidate down, resulting in a lower test score.

Response Scale

The security of a test's response scale goes hand in hand with the security of the question type. This raises the notion of applicant faking on employment assessments. Faking in some forms (e.g., blatant extreme responding; Landers, Sackett, & Tuzinski, 2011) may be construed as cheating especially if an intervention (e.g., coaching) leads candidates to use a more extreme response pattern on personality tests.

Biodata is a unique form of noncognitive assessment that asks about past experiences as they may inform future behavior. Such experiences could include job-relevant experiences that bear on the role to which a candidate is applying (e.g., number of sales awards won in previous sales jobs), attitudes about organizations based on past work experiences, or simply facts about one's history. In many cases, the response scale for biodata items tends to be noncontinuous as response options are developed in such a way to maximally distinguish people, even if this is not transparent to the candidate. Furthermore, the scoring of biodata often relies on empirical keying of the response options to the criterion it is intended to predict, which further obscures the most socially desirable response option.

Situational judgment tests are yet other examples of test types with a distinctive response scale. In a construct-oriented approach (Ployhart, 1999), response options represent different levels of the underlying construct being assessed. In a more criterion-centric approach, various viable response options are developed to represent plausible actions that could be taken, with one or more responses leading to a higher score. If scored empirically, the transparency and cheating potential may be reduced with this test type.

Instructions

Instructions provided to candidates can be powerful tools in deterring cheating. They provide an opportunity to establish and communicate a clear assessment contract with the candidate. Instructions can inform test takers that cheating behavior is detectable, they can stipulate that a penalty or invalidation of scores may result as a consequence of cheating, they can describe both the detection and consequence of cheating, they can appeal to a candidate's sense of right and wrong, or they can appeal to a test taker's interest in being prop-

erly fit for a job in which they can succeed. Research and theory have suggested that instructions that involve statements about both cheating detection and cheating consequences are likely to be efficacious (Pace & Borman, 2006).

Process Considerations

Even well-designed tests that attempt to deter cheating may be susceptible to security issues. In truly open testing conditions, candidates can work together to gain preknowledge of test questions and "practice" in live testing events to identify a response pattern that earns a passing score. In addition, the threat of proxy test taking exists with unproctored testing unless candidates' identities are verified.

To mitigate these concerns, attention must be paid to the testing process. In this section, we discuss several process considerations that can enhance the security of an employment testing program.

Tailored Instructions

If cheating is suspected or detected in a given organization, instructions can be easily modified to meet a particular company's testing needs, level or cheating risk they are willing to assume, and consequences of cheating they may wish to communicate and/or enforce.

Using Technology to Enhance the Test Security Process

Several technology-based methods exist to increase an online test's security by limiting its exposure. Having a single point of entry for candidates to access a test helps increase test security. A link sent by a recruiter via e-mail to a candidate is relatively more secure than a permastatic link posted to a job board. Similarly, utilizing single-use links that only permit one candidate to test can help make a test less vulnerable to compromise through widespread sharing of content. Other methods of technology-enhanced test security include test item randomization to mitigate the threat of candidates obtaining an "answer key" with a string of numbers/letters to recite when responding to questions.

Confirmation Testing

Confirmation or verification testing is perhaps the single most effective process enhancement to increasing a testing program's security. No other method authenticates the individual's identity to ensure that the person completing a test is the same person applying to a job. Confirmation testing generally involves a two-stage testing process, consisting of an initial, unproctored test followed by a second on-site/proctored assessment in which the candidate's identity can be verified. Confirmation testing can be implemented such that every candidate sits for a confirmation test, or it can be used randomly so that the incidence of cheating can be monitored and/or the simple threat of confirmation testing makes would-be cheaters think otherwise.

The mechanics of confirmation test can function several ways. Traditionally, scores on confirmation tests are compared to the unproctored test. If scores vary substantially, differ more than would be expected due to chance, and/or are outside a particular confidence interval or standard error of measure, they would be flagged for suspected cheating. Organizations then decide how to proceed, with options including administering a parallel full-length test again or disqualifying a candidate from further consideration.

Other methods of confirmation testing mitigate the ambiguity that can result from more traditional methods of confirmation testing. Fetzer and Grelle (2010) describe an approach that uses a candidate's final score from an unproctored test as the starting point of the confirmation test. Honest candidates who sit for the confirmation test will quickly converge on a reliable score and the test will terminate. Dishonest candidates may have a longer test session as more items are administered to arrive at a reliable and accurate final score. For all test takers, the final score on the proctored test is considered the score of record that should be used in employment decision making.

The choice to implement confirmation testing often boils down to the impact of making hiring decisions on the basis of inaccurate information (Fetzer & Grelle, 2010). In other words, organizations must understand the consequences of hiring someone who may not possess the level of skill or ability that is represented by his/her UIT score. Considerations such as job complexity, applicant flow, and level of risk to the organization should be weighed.

Proctored Only Testing

Testing is largely moving to unproctored environments, but there may be legitimate needs to keep tests better protected through proctored only testing. Similar to the risk/benefit decision that must be weighed with confirmation testing, companies should decide if the cost of making hiring decisions on the basis of inaccurate information is substantial enough to restrict testing to proctored only environments. This decision can be based on several factors, including: 1) knowledge/suspicion that cheating is present, 2) the extent to which a test can be cheated, 3) a job is highly desirable which may lead to higher levels of cheating due to more competition, 4) testing occurs in locations more susceptible to cheating by sharing information based on cultural norms, 5) a job's responsibilities, its role in the company's essential functioning, and/or the potential damage that could be done by the individual in this role necessitate highly accurate information.

Proctored testing should be done correctly to be effective. As has been noted in previous papers (Beaty et al., 2009, Drasgow, Nye, Guo, & Tay, 2009), the notion of proctored testing can be more variable than the name implies. Contemporary uses of proctored testing can involve anything from testing centers with staff that monitor and note testing behavior to administering a test down the hall from a company receptionist who is proctoring a test while also greeting visitors and responding to calls and e-mails.

Investigation: Tracking Down Security Breaches

Investigation refers to reactive activities to identify potential breaches of test content. Activities in this area include methods of identifying test breaches and conducting analyses on test data to identify anomalies or trends indicative of compromise.

Identifying potential breaches to the security of an employment testing program is increasingly difficult in the age of online, on-demand, unsupervised testing. Breaches can more readily be identified under more "traditional" testing models, where qualitative and quantitative bits of information can be obtained to triangulate on cheating attempts. Seating charts, response patterns, and testing locations can all be pieces of evidence in an investigation to determine if cheating occurred during a single test event. The results of such an investigation can include withholding or invalidating scores.

The challenge is far greater with online testing. Information about testing location is virtually unknown as is candidate identity, what illicit information they might be using on a test, and if candidates had preknowledge of the test questions.

Information Monitoring

An established web patrol program is a powerful method for mitigating threats associated with unsupervised assessments. Especially in the social media era, candidates may seek answers to test questions, ask for information about companies' hiring processes and assessments, post test questions for personal gain and/or profit, or request proxy test-taking services. These threats to test security can be mitigated through a robust web patrol program whereby test details are queried and searched, and "hits" are investigated to determine any intellectual property infringement and/or improper activity.

Cheating by using online tools has become more sophisticated than simply posting or finding screen shots of test questions. Social media has enabled active discussions by candidates looking to cheat and/or compromise a test. Bids are placed on auction sites for proxy test taking, fee-based test-taking services have spawned on the Internet, and documents containing test questions are shared on social networking/file sharing sites. Testing companies are well served by having "moles" patrol social media outlets to investigate the incidence of cheating, determine damages associated with cheating, and identify vulnerabilities in testing processes, with the ultimate goals of taking legal action against individuals "caught" cheating and to deter cheating by making it well known that such outlets are patrolled for such purposes.

Data Forensics

Although information monitoring is critical to containing test security breaches, monitoring the voluminous amount of information on the web is a daunting task. Constructing a data warehousing system with automated analyses that can be leveraged to identify data anomalies is a far more manageable

method of detecting test security breaches. Data forensics is a large and sweeping term and can be defined differently based on need. As noted by Beaty et al. (2009), research on the best methods for identifying suspicious data could include repeated response patterns, changes in means and pass rates, response latency changes, and individual score decreases in proctored follow-up testing.

A well-constructed data forensics program may not only help to identify score anomalies but may also inform testing programs about the best way to handle such issues based on their severity (e.g., discontinue test all together, rotate items). Analyses will likely be exploratory in nature, conducted with the intent of learning about potential test exposure, and also used to substantiate specific concerns or testing irregularities with the intent of combining findings with other information (e.g., web patrol reports). With sufficient partnership between psychometricians and database specialists, it is possible to design a program that automates as many of the forensic analyses as possible. Additionally, testing programs may benefit from prioritizing "high risk" content (which can be defined in many ways such as development costs, usage/exposure, vulnerability based on how tests are implemented, and/or test properties) if resources for conducting data forensics analyses are minimal.

When designing a data forensics program, it is important to keep in mind the types of questions that the results of the forensic analyses will be used to answer. These questions may differ depending on the testing industry and purpose of the assessment content. For example, in the personnel selection context where testing is often given online, on-demand, with immediate reporting, the end goal may not be to necessarily catch individual cheaters. It may be that changes in the validity of test scores due to cheating or compromised content are the main cause for concern.

Enforcement: Taking Action on Cheating

Enforcement involves the steps and methods taken to "correct" a situation involving cheating or compromise once it is discovered. Enforcement is also critical to containing any content leak in order to avoid it from spreading further. The sooner compromised content is removed, the less chance it has to have been viewed, copied, or shared with others. Establishing robust processes related to enforcement involves close partnership with intellectual property attorneys and/or relying on established intellectual property law (e.g., Digital Millennial Copyright Act; DMCA).

Efforts in this area largely involve sending cease and desist and/or DMCA notices to offending parties. The vast majority of content security incidents are quickly and easily handled via notices submitted to website administrators using the DMCA guidelines. In isolated cases, escalated take down notices from attorneys may be involved to have the content removed.

For issues not involving copyright infringement, specific cases need to be discussed with legal counsel to determine the extent of damages done, the point at which action would be taken, and what information is required to take action.

Looking Ahead and Planning for the Future

What does the future hold for test security? As testing takes on new and different forms and technology advances well beyond the confines of a personal computer, is it reasonable to think that test publishers can maintain and monitor the security of tests?

Mobile Testing

New testing platforms will bring new frontiers of test security. We see mobile technology infiltrating everything we do and we are on the cusp of using mobile technology to deliver tests. Organizations increasingly seek the capability to deliver tests via mobile devices to meet growing interest from prospective candidates in completing online application processes via mobile devices and tablets. Likewise, companies need to ensure that test scores obtained across devices (i.e., PC, mobile device) are equivalent.

Increasing the accessibility of preemployment tests brings a number of benefits to organizations and candidates but presents a number of potential challenges, including increased exposure of tests, more diversity in test taking environments, and potential changes to the quality of the test-taking experience. Programmatic research can help understand the risks posed by these potential challenges to preemployment testing. We view testing via mobile devices as an extension of research on UIT, which provides a promising outlook regarding the feasibility of mobile testing but critical research is required to establish its appropriateness.

Social Media

As noted previously, attempts to gain preknowledge of test questions have evolved beyond simple keyword queries on Internet search tools. Candidates are starting to interact on the web to figure out ways of colluding and collaborating to earn passing test scores. We have seen instances of proxy test-taking businesses, and we anticipate this kind of service to rise in demand and prevalence.

New Technology to Prevent Cheating

As technology presents new avenues for candidates to cheat, it also presents new avenues for testing providers to mitigate cheating. New techniques like remote proctoring can be used to increase security associated with UIT. Remote proctoring is an increasingly easy way to virtually monitor test sessions of examinees completing tests in remote environments. Webcams built into examinees' computers and/or provided by an organization and/or remote proctoring company can be used to monitor testing behavior (e.g., surveillance for the use of any illicit test materials) and/or picture identification (in which a candidate has to present a valid form of photo identification via webcam). Webcams can be shipped to candidates inexpensively so this represents a viable method of proctoring to increase a program's security.

Novel Statistics for Detecting Cheating

New statistical techniques are being implemented and developed to detect the presence of cheating in test data. Parametric and nonparametric tests are being considered, as is IRT for detecting cheating. At the same time, classic indicators of cheating (e.g., K index, or identical incorrect responding, Holland, 1976) are being considered or reconsidered for online test data.

In addition, new techniques including embedded verification exist to determine the consistency of scores from new/protected item banks with items that have been exposed. This involves "poisoning" an item pool by releasing items with the express purpose of comparing scores on these items to those from a protected item bank. This can be a valuable way of determining preknowledge of test questions, ways/locations in which candidates may obtain questions in advance, and detecting the usage of braindump sites.

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Enforcement of Employment Law: What the Next Four Years Will Bring

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(Editor's Note: Here is a quick introduction by **Eric Dunleavy** from **On the Legal Front**)

November has come and gone, and President Obama has been reelected. **Art Gutman** and I thought it would be interesting to ask some well-respected lawyers from Washington DC if they would be willing to speculate on where they see EEO enforcement going during President Obama's second term. David Fortney and his colleagues at FortneyScott accepted the invitation and prepared an insightful response. We think this is worthy of its own space in *TIP* and hope that you enjoy it. With that I will turn it over to David and his team. Fasten your seatbelts.

As President Obama made clear in his Second Inaugural Address, issues of "equality" will play a significant role in the domestic policy of his second Administration. The principle vehicles to implement his vision of equality will be the Equal Employment Opportunity Commission (EEOC) and the Department of Labor's Office of Federal Contract Compliance Practices (OFCCP). In what follows, we will discuss both the steps these agencies have announced they will take and our beliefs about where federal enforcement will be moving.

The common theme that unites these two agencies is broader, more aggressive enforcement. We believe this will come not only in the form of intensified activity under existing laws and regulations, but also by means of an expansion of the means by which enforcement can occur, whether it is new guidance, regulations, interpretations, and/or compensation guidelines.

EEOC

The EEOC has already announced its Strategic Enforcement Plan (SEP). In essence, the SEP outlines the agency's enforcement objectives. The SEP identifies the six key areas on which the EEOC intends to focus:

- Eliminating barriers in recruitment and hiring;
- Protecting immigrant, migrant, and other vulnerable workers;
- Addressing emerging and developing employment discrimination issues;
- Enforcing equal pay laws;
- Preserving access to the legal system; and
- Preventing harassment through systemic enforcement and targeted outreach.

[1] FortneyScott is a Washington, DC-based law firm counseling and advising clients on the full spectrum of workplace-related matters. FortneyScott represents clients in agency enforcement matters and rulemakings, administrative hearing, and litigation matters, including mediation and arbitration.

The addition of equal pay as a priority enforcement area is one of the most significant elements of the SEP. This also signals that an Administration effort on pay equity will likely be launched in Congress.

Although there have been similar plans in the past, this SEP has a new tone of seriousness in that it includes measurable steps to implement its goals. The required development of district complement plans by March 29, 2013, with the required inclusion of how each district will implement the SEP priorities, identify local enforcement priorities, including areas for systemic investigation and litigation, and identify strategies for collaborative legal and enforcement efforts, all indicate that the EEOC wants to bring a heightened focus to its often diffuse efforts.

In addition, the SEP seeks to overcome the traditional independence of the regional and district offices by providing for oversight and coordination by the Commissioners to ensure there is cohesion among the districts and that the individual plans effectively complement national priorities. District complement plans will take effect June 1, 2013.

It remains to be seen whether this SEP succeeds where its predecessors have failed. The regions and districts fiercely protect their independence. Further, the breadth and number of goals in the SEP seem certain to dilute the EEOC's efforts. It is more likely that the EEOC, as in the past, will narrow its focus to areas it believes are "emerging" and, frankly, politically advantageous, systemic or not.

With that in mind, it seems certain that pay equity for women and anti-discrimination efforts for undocumented workers and lesbian, gay, bisexual, and transgendered individuals will be in the forefront of the agency's enforcement plans. Further, because the EEOC is an independent agency with a history of acting on the basis of "guidances" rather than formal regulations, it is likely that these pronouncements will be issued and enforcement in these areas will follow.

OFCCP

It is easy to predict future enforcement by the OFCCP. One need only quote Samuel Gompers, who, when asked what labor wanted, simply said: "More!" This DOL wants the same.

It is not likely that members of SIOP need much introduction to the OFCCP's proposed regulations on the hiring of veterans and individuals with disabilities. Both of these regulations, scheduled for publication in April 2013, will bring about "a sea change" in affirmative action. They will also require a profound retooling of the recruiting and hiring practices of every federal contractor and of the methodologies for demonstrating compliance.

Of perhaps greater interest is that OFCCP seems intent to remake the basic model of affirmative action and general compliance under the Executive Order without regard for the remarkable success of past practices and without regard for the legal basis of their new endeavors.

With respect to the veterans' regulations, the absence of reliable data as to the numbers of available veterans in relevant applicant pools and the difficulties in measuring compliance in such a situation is but one problem area federal contractors and their statistical counselors will face. How existing law can validate a naked preference in the private sector and how sex discrimination can be avoided given the preponderance of men among the pool of veterans are other issues raised by the regulations.

All of these concerns, especially about measurable availability—and more—are raised by "the 503 regulations." The insistence by OFCCP that federal contractors have to reach a 7% hiring "goal" for people with disabilities in all job groups in all localities, ask disabled applicants to self-identify as disabled at the pre-offer stage, and meet additional posthire surveys of disabled employees unrelated to affirmative action objectives all raise numerous questions that will surely be challenged in the courts.

We will soon learn whether the final regulations retain these unprecedented changes to affirmative action as it has operated—and been approved by the courts—for decades. Our view is that the OFCCP will pursue this course. On too many occasions, OFCCP has stated that success will be measured by "who is hired" for there to be a retreat. Whether the courts will approve the agency's position remains to be determined. The only certainty about OFCCP enforcement is "more!"



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Increasing I-O and SIOP Brand Awareness Among Business and HR Professionals: What's the Baseline?

Mark Rose
U.S. Air Force

Elizabeth McCune
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For consumers, brands can simplify choice, increase trust, reduce risk, and promise a particular level of value (Keller, 2006). When customers are loyal to a brand, they may purchase offerings associated with that brand over those of competitors, even at a premium price (Aaker, 1996). In the non-profit sector, brands position organizations to build internal cohesion, develop credibility with external constituents, and achieve impact in the world (Kylander & Stone, 2012). For all these reasons, a brand can hold tremendous value, known as brand equity. Brand awareness is considered one of the key pillars of a brand's equity (Aaker, 1991).

The primary purpose of this study was to quantify current awareness of two "brands," I-O psychology and SIOP, among business and HR professionals. These results are to be used as a baseline against which future efforts at increasing I-O and SIOP visibility can be compared. Based upon previous studies (e.g., Gasser, et al., 1998) and personal experience, we expected that familiarity with I-O and SIOP would be low. A secondary purpose of this study was therefore to gather feedback from target respondents that could be used in increasing awareness of I-O and SIOP.

Method

In March 2012, a 15-item questionnaire was sent electronically to a panel of U.S. business professionals (final $n = 185$) obtained through MarketTools, an online market research firm, and in July 2012, an overlapping eight-item questionnaire was sent to U.S. HR professionals through the Society of Human Resources (SHRM; final $n = 527$). The HR sample received a shorter survey due to response rate concerns, as these participants were not provided with financial incentives for survey completion.

The majority of the business professional participants (business sample) worked for organizations with 1,000+ employees (80%), were male (59%),

and were 41 years of age or greater (60%). Participants included executives and directors (48%), and managers, supervisors, and individual contributors (52%) from a range of industries. The majority of SHRM participants did not respond to demographic questions; those who did (≈ 17%) represented a range of primary HR responsibilities (e.g., hiring/selection, training and development, employee engagement) and industries. Upon survey completion, all participants received information about SIOP and I-O psychology, and were directed to the SIOP website.

Questions focused on three broad areas: (a) awareness of I-O and SIOP, (b) channels of awareness, indicating how participants became familiar with I-O and/or SIOP, and (c) perceived value of the services offered by I-O psychologists and SIOP.

Results

Awareness of I-O and SIOP

Participants were asked to indicate their familiarity with the profession of I-O psychologist on a five-point scale ranging from 1 = *not familiar* to 5 = *very familiar,* and to indicate their familiarity with a range of professional organizations potentially relevant to business and HR professionals, including SIOP. Table 1 summarizes results of awareness of I-O psychology and SIOP.

Table 1
Familiarity With I-O and SIOP

	Combined samples (n = 712)	HR professionals (n = 527)	Business professionals (n = 185)
I-O brand	19.4%	14.8%	32.4%
SIOP brand	8.7%	7.8%	11.4%

Across the samples, 19.4% of participants indicated familiarity with I-O, and 8.7% familiarity with SIOP. Furthermore, more participants from the business sample (32.4%), relative to the HR sample (14.8%), were familiar with I-O. Based on the channels of awareness findings, discussed in the following section, greater familiarity with I-O for the business sample may reflect at least two influences: (1) frequency of coverage of I-O psychology in business classes (which in turn may reflect the increasing presence of I-O psychologists in business schools), and (2) a tendency for business professionals to stay current with news that references I-O psychology.

Table 2 further summarizes familiarity with SIOP as compared to other professional organizations. As shown, the American Society for Training and Development (ASTD), National Human Resources Association (NHRA), and SHRM tended to be among the more familiar organizations across samples, whereas International Personnel Assessment Council (IPAC), Society for Consulting Psychology (SCP), and SIOP were among the less familiar. Academy of Management was relatively familiar to business (36.8%) but not HR professionals (7.8%).

Table 2
Familiarity With Professional Organizations

Organization	HR professionals (n = 527)	Business professionals (n = 185)
Academy of Management (AOM)	7.8%	36.8%
American Society for Training and Development (ASTD)	45.2%	31.4%
International Personnel Assessment Council (IPAC)	4.7%	17.3%
National Human Resources Association (NHRA)	23.9%	41.6%
Society for Consulting Psychology (SCP)	2.5%	14.1%
Society of Human Resources Management (SHRM)	98.5%	33.0%
SIOP	7.8%	11.4%
None of the above	0.8%	n/a

Participants also were asked to rate their familiarity with various well-known I-O consulting firms (e.g., DDI, PDI Ninth House, SHL Previsor). As Figure 1 illustrates, participants were much more likely to indicate familiarity with one or more I-O consulting firms than with either the I-O or SIOP brands. These findings may reflect low frequency of use of the title I-O psychologist by consultants trained in I-O psychology (at least in part) and suggest that I-O firms are likely to have experience or guidance that could be of use in building awareness of the broader field.

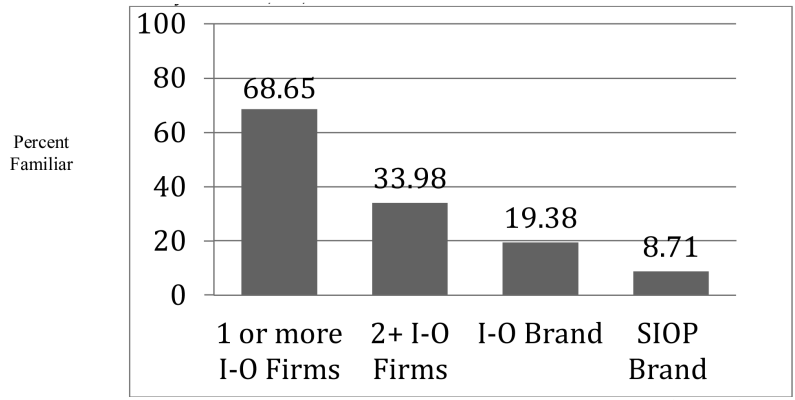


Figure 1. **Familiarity I-O Firms, I-O, and SIOP**

Note. Firms included in survey were AON Hewitt, APT Metrics, Inc., CEB Valtera Corporation, Development Dimensions International (DDI), Hogan Assessments, Human Resources Research Organization (HumRRO), PDI Ninth House, SHL Previsor, and Sirota Survey Intelligence; Familiarity with I-O firms based on business sample (n = 185); familiarity with I-O and SIOP brands based on total sample (n = 712)

Channels of Awareness

The purpose of asking questions about how participants gained familiarity with I-O and SIOP was to gain insight about what channels may be most effective, and what channels are potentially underused, in conveying messages about the strengths and advantages of I-O psychology and SIOP.

Tables 3 and 4 summarize the channels through which participants gained familiarity with I-O and SIOP, respectively. Popular channels for learning about I-O were classes (I-O, other psychology, business), knowing an I-O psychologist, and the news. Popular channels for learning about SIOP were classes, knowing a SIOP member, the news, SIOP website, and SIOP-published materials. Notably, most of the more popular channels (with the potential exception of knowing an I-O psychologist) have been associated with sustained SIOP visibility efforts directed by SIOP and its committees, suggesting that these visibility efforts may be having some impact. For example, there have been ongoing efforts to educate students about the field, just one example of which is making I-O teaching materials available to non-I-O instructors.

Table 3
How Have You Heard About I-O?

Source	HR professionals (n = 78)	Business professionals (n = 60)
I have read/heard about I-O psychologists in the news	24.4%	23.3%
I had a class in business where I-O psychology was discussed	34.6%	36.7%
I had a class in psychology (other than I-O psychology) where I-O psychology was discussed	37.2%	23.3%
I had a class in I-O psychology	42.3%	11.7%
I know someone who is an I-O psychologist	30.8%	25.0%
My organization (current or previous) employed I-O psychologists	18.0%	18.3%
I have worked alongside I-O psychologists	18.0%	20.0%
I have hired I-O psychologists to provide services (i.e., as a vendor or employee) for my organization	16.7%	11.7%
I sell services to I-O psychologists	0.0%	6.7%
I have attended a SIOP conference (semi-annual or annual)	5.1%	8.3%
I have a degree in I-O psychology (MA, MS, PhD)	14.1%	3.3%
Not sure	1.3%	8.3%
Other (please specify):_____	10.3%	0.0%

Efforts are also underway to better utilize what the survey revealed as underused channels. For example, this year SIOP will be inviting a wide range of non-I-O business professionals from the Houston area to attend the annual conference, potentially increasing the annual SIOP conference as a channel of awareness for I-O and SIOP. Finally, it's likely that increased awareness through some channels may occur naturally as an outgrowth of other activities or developments, such as through the increasing number of graduate programs offering I-O and organizational psychology degrees (Silzer & Parson, 2013).

Table 4
How Have You Heard About SIOP?

Source	HR professionals (n = 41)	Business professionals (n = 21)
I have read or heard about SIOP in the news	17.1%	38.1%
I had a class in business where SIOP was discussed	22.0%	23.8%
I had a class in psychology (other than I-O psychology) where SIOP was discussed	12.2%	33.3%
I had a class in I-O psychology or organizational behavior where SIOP was discussed	43.9%	23.8%
I know someone who is a SIOP member	34.1%	28.6%
I am a SIOP member	4.9%	n/a
I am a member of a SIOP social network (e.g., LinkedIn)	12.2%	23.8%
I have visited the SIOP website	34.1%	23.8%
I have been invited to a SIOP conference (semi-annual or annual)	9.8%	19.0%
I have attended a SIOP conference (semi-annual or annual)	7.3%	19.0%
I have purchased or read materials published by SIOP	26.8%	38.1%
I have a degree in I-O psychology (MA, MS, PhD)	14.6%	14.3%
Not sure	4.9%	28.6%
Other (please specify):_____	4.9%	0.0%

Perceptions of I-O and SIOP

Questions about perceptions of I-O and SIOP focused on services for which participants would recommend an I-O psychologist, ratings of I-O and SIOP value (five-point scale from 1 = *very low* to 5 = *very high*), ratings of I-O psychologists on key characteristics (seven-point scale from 1 = *weak* to 7 = *strong*), and perceived strengths and weaknesses of I-O and SIOP (open-ended).

Services that participants would recommend an I-O psychologist for are shown in Table 5, in descending rank order based on HR participant responses. Not surprisingly, items such as assessment centers, test development, and test validation tended to be among those activities where HR professionals more frequently recommended I-O psychologists. Less specialized activities such as performance management, and items less clearly within the purview of I-O psychology such as workforce planning, were less frequently endorsed. For the business sample, services for which I-O psychologists were recommended were generally fewer and appeared somewhat less aligned with traditional perceptions about I-O skills. For example, the activity endorsed most frequently by business participants was compensation and rewards (30.0%), potentially reflecting unique needs of business relative to HR professionals.

We also asked participants to rate I-O psychologists in several areas relevant to the value I-O services provide, their commitment to various stakeholders (e.g., the organization; individual employees), and their effectiveness in key areas (ability to deliver high quality results, quickly, and cost effec-

tively). All items presented to each sample received above average ratings. For example, Figure 2 shows the perceived value of SIOP and I-O psychology as rated by the business sample, and Table 6 presents ratings of I-O psychologists on key characteristics by HR professionals.

Table 5
For Which Services Would You Recommend I-O Psychologists?

Service	HR professionals (n = 76)	Business professionals (n = 60)
Change management	35.5%	16.7%
Test development	35.5%	8.3%
Assessment centers	32.9%	18.3%
Test validation	32.9%	5.0%
Leadership development	31.6%	8.3%
Team building	28.9%	5.0%
Executive coaching	27.6%	11.7%
Research and statistics	26.3%	13.3%
Organizational surveys	25.0%	5.0%
Employee selection/hiring	19.7%	20.0%
Work stress	19.7%	3.3%
360 degree surveys	18.4%	13.3%
Competency modeling/job analysis	18.4%	11.7%
Creation of training and development materials	18.4%	20.0%
Selection interviews	18.4%	5.0%
Performance management	15.8%	3.3%
Workforce planning	14.5%	1.7%
Facilitation of training and development	10.5%	8.3%
Succession management	9.2%	1.7%
Compensation and rewards	4.0%	30.0%
Legal audits/expert witness testimony	2.6%	8.3%

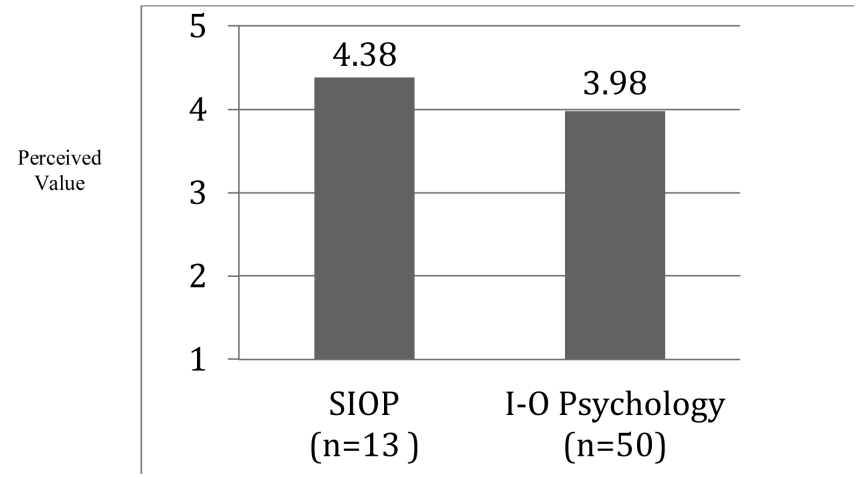


Figure 2. **Perceived Value of SIOP and I-O Psychologists**

Note. Five-point scale: 1 = *very low* to 5 = *very high*

Table 6
Rating of I-O Psychologists on Key Characteristics

Characteristic	HR professionals (n = 64)
Their commitment to bettering the organizations they work for or with	5.91
Their commitment to bettering the lives of individual employees of the organizations they work for or with	5.74
Their willingness to adjust methods to meet business needs	5.50
Their knowledge of strategic business issues	5.24

Note. Seven-point scale: 1 = *weak* to 7 = *strong*

Results indicate that those familiar with I-O and SIOP tend to see value in the products and services offered.

They also view I-O psychologists as committed to bettering both the organizations they work with and lives of individual employees. Absolute ratings of "willingness to adjust methods to meet business needs" and "knowledge of strategic business issues" also were high, although their lower relative position mirrors open-ended comments about the strengths and weaknesses of I-O and SIOP.

Open-ended comments generally paralleled participants' ratings and, perhaps more importantly, what may be viewed as key aspects of I-O's self-identity (e.g., Ryan, 2003; Zickar & Gibby, 2005). Qualitative review of open-ended comments revealed four themes among responses about strengths of I-O (research, focus on behavior, knowledge base, quality/education) and three themes among responses about weaknesses of I-O (visibility/branding, lack business/organizational understanding, not taken seriously). Table 7 presents examples of each.

Table 7
Strengths and Weaknesses of I-O

Category	Examples
Strengths	
Research	"Primary strength is research and consulting" "scientist–practitioner model" "using objective data and methods to support initiatives" "Strength in statistical and validated tools that can be used on an individual and organizational level"
Focus on behavior	"Behavioral science" "Behavioral approaches" "Focus on improving actions, behaviors, results within organizations"
Quality/education	"Well-educated" "Recognized discipline that is respected by those who are familiar with it" "Education is a strength"

Table 7 (continued)

Category	Examples
Weaknesses	
Visibility/branding	"Weakness is many are not familiar with it"
	"Lack of clarity of profession, recognition"
	"Management's lack of understanding about what they do"
	"There is little information regarding the full scope of their abilities and functions"
Lack business/ organizational understanding	"Understanding business processes and the bottom line"
	"Typically used in a silo with limited exposure to the businesses they support"
	"Often brought in from the outside, difficult to find ones that have a clear understanding of business challenges"
	"As a weakness, they may not know the organization in great depth"
	"They seem to be somewhat out of touch on the day to day requirements and demands"
Not taken seriously	"Overly academic"
	"Senior leadership often dismissed the value of I-O psychology"
	"Not sure if they are always taken seriously"
	"Some associates/directors/executives think I-O psychology is too much about feelings and not about business…I-O psychology is about business!"

Comments about SIOP were closely aligned with those about I-O. Perceived strengths of SIOP were research, knowledge base, and quality/credibility. The major perceived weakness for SIOP was lack of visibility. Comments about lack of visibility, some of which are shown below, were even more pointed than similar comments about I-O:

- "Not known very well outside its own industry"
- "Not a very open or sharing group"
- "Branding needs to be improved"
- "Needs to be out there showing up on websites about related things"
- "Should be marketed more to professionals through e-mails and flyers"

Conclusions

This survey of I-O and SIOP brand awareness provided baseline metrics for use as comparison points in future visibility surveys. It also provided new insights as well as findings that confirmed expectations. Both types of results should help guide visibility efforts and allow them to move forward with greater confidence. Although there are several findings worth emphasizing, we note two that were especially encouraging. First, in the open-ended comments, with no predefined guidance or priming, participants highlighted the value of the I-O and SIOP knowledge base. As noted by Ryan (2003), "we cannot be defining ourselves through just a reference to the types of practice we engage in, but we must be referring back to our knowledge base and our

disciplinary core. It isn't being a test developer, or a change agent, or a trainer, or a survey designer that defines our identity—other people do these things. Our identity derives from how we do it, how we approach it, what we base it on." We view the fact that customers recognized our knowledge base as a strength as a very positive sign for defining and differentiating the field. Second, based on ratings and open-ended questions, customers viewed I-O and SIOP as providing a high level of customer value. Although we need to closely attend to criticisms such as lack of business/organizational understanding, feedback that a major weakness is "needs to be out there showing up on websites" and "should be marketed more to professionals" bodes well for the success of future visibility efforts, which continue to strengthen and grow (Persing & Corbet, 2013; Reynolds, 2013).

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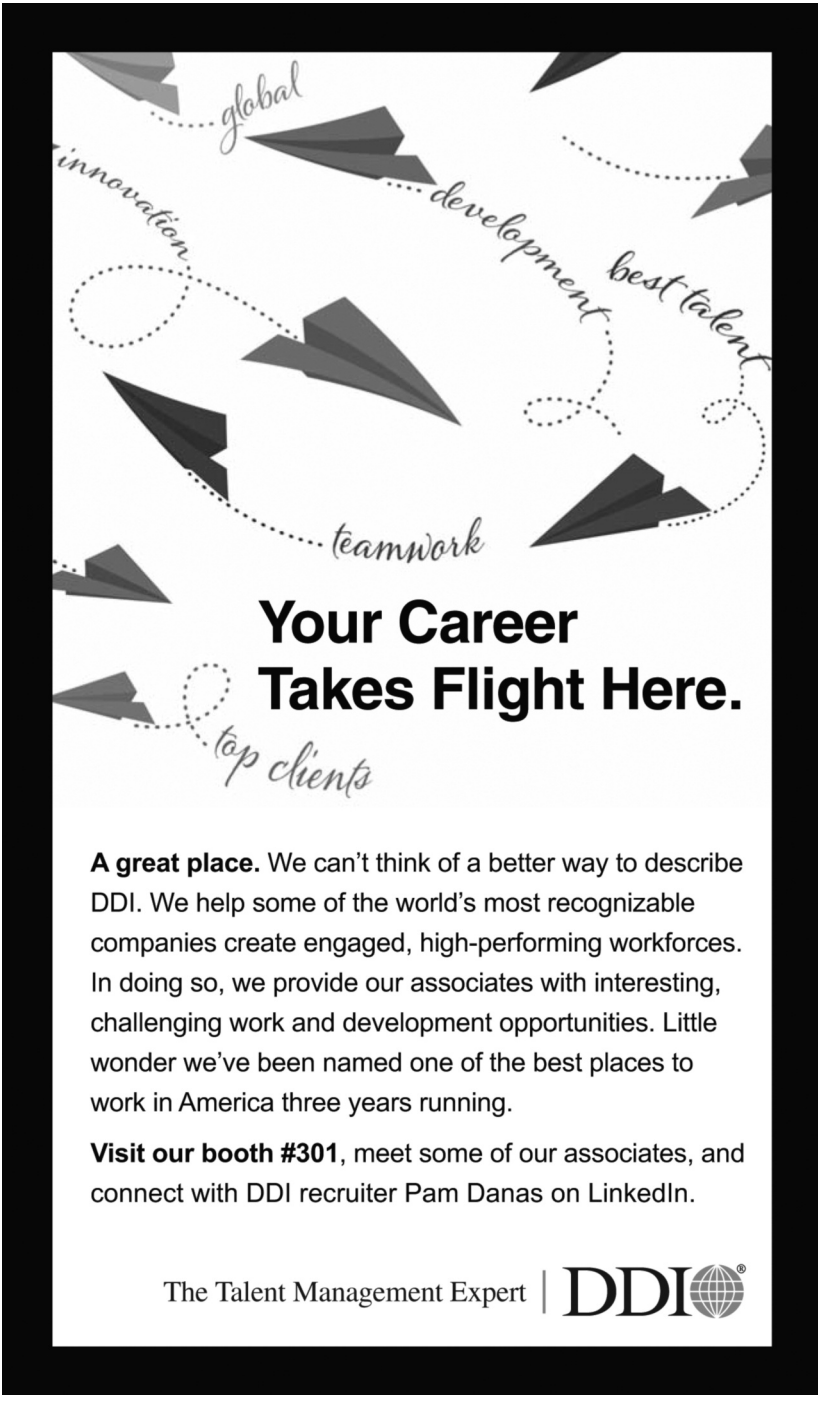
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Mean Job Satisfaction Levels Over Time: Are Things Bad and Getting Worse?

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Job satisfaction is a topic that has captured the interest of organizational researchers, managers, and laypeople alike. It is often reported in the popular literature that most workers are dissatisfied with their jobs and that dissatisfaction has become increasingly common in recent years (see Franco, Gibbons, & Barrington, 2010; for an opposing opinion, see SHRM, 2009). These authors have suggested, for instance, that:

- "job satisfaction is at an all time low" (Job Satisfaction, 2010).
- "more people out there are miserable in their jobs than fulfilled by them" (Lencioni, 2007, p. 219).
- "In many countries throughout the world, there seems to be a kind of widespread dissatisfaction at work. . . And things seem to be getting worse" (Lama & Cutler, 2003, p. 17).
- "Even Americans who are lucky enough to have work in this economy are becoming more unhappy with their jobs" (Americans' Job Satisfaction, 2010).

Although statements such as these often grab news headlines, they are inconsistent with scientific theorizing about the general happiness levels of the "average person" (Cacioppo, Gardner, & Berntson, 1999; Diener & Diener, 1996). This theorizing suggests that, because positive emotion is both biologically and psychologically adaptive, evolution has produced generally high levels of happiness within the human species. Consider the potential competitive advantage of being happy. First, being happy contributes to high levels of approach motivation, thus allowing one to better capitalize on personal opportunities and to build one's personal resources (Fredrickson & Losada, 2005). As just one example, happiness helps to strengthen existing friendships and it facilitates the development of new friendships, thus helping to nurture one's interpersonal resources. Second, happiness may be adaptive in that it contributes to one's ability to readily detect threatening situations (Diener & Diener, 1996). That is, a contrast effect may occur in which negative—and potentially damaging events—become more conspicuous among people who are accustomed to primarily experiencing happiness and other positive emotions. Although these mechanisms were originally offered to explain why the average person is relatively satisfied with his or her life overall, one could also interpret them as predicting the existence of relatively high mean job satisfaction levels. Furthermore, we expect that despite the occurrence of ambient work-relevant events that impact entire societies (e.g., economic downturns), the general human predisposition toward being happy causes mean

job satisfaction levels to be uniformly high from one year to the next. Thus, we offer two hypotheses, which we tested using three multiwave archival datasets:

Hypothesis 1: Workers will generally report job satisfaction levels that are higher than the satisfaction scale's midpoint.

Hypothesis 2: Mean job satisfaction levels will consistently remain higher than the scale's mid-point from one year to the next.

Method

Participants

We used three independent archival datasets to test Hypotheses 1 and 2. These datasets were The General Social Survey (GSS; The National Data Program for the Sciences, 2006), the Wisconsin Longitudinal Study (WLS; University of Wisconsin System, 2005), and the Adult Longitudinal Panel (ALP; Lepisto, 1997). We used these particular datasets because each included multiple waves of global job satisfaction data and they included participants from a cross-section of different occupations.

GSS. The GSS (The National Data Program for the Sciences, 2006), which uses a nationally representative sample to address basic scientific questions regarding the structure and development of American society, contains a standard core of demographic, behavioral, and attitudinal questions. Many of the core questions have remained unchanged since 1972 and appear on multiple waves of the GSS, thus facilitating the examination of trends over time. The GSS assessed global job satisfaction in 26 separate waves between 1972 and 2006 using the single item: "On the whole, how satisfied are you with the work you do: Would you say you are very satisfied, moderately satisfied, a little dissatisfied, or very dissatisfied?" We coded participant responses such that high scores (4) represented high job satisfaction and low scores (1) represented low job satisfaction. The *n*s ranged from 944 (for the 1972 wave) to 2,338 (for the 1994 wave). The average age across all waves was 46 years old, and the sample was 54.3% female and 81.8% Caucasian.

WLS. The WLS (University of Wisconsin System, 2005), which uses a random sample of 10,317 participants who graduated from Wisconsin high schools in 1957, includes items addressing a diverse set of topics, including family relationships, educational experiences, work experiences, and physical and mental health. Study participants first completed surveys during their senior year of high school when they were 17–18 years old (in 1957) and again at ages 36 (in 1975), 53–54 (in 1992–1993), and 64–65 (in 2003–2004). Of the 10,317 original sample members, 9,139 (88.6%) were interviewed in 1975, 8,493 (82.3%) in 1992–1993, and 6,278 (61%) in 2003–2004. As of 2004, 1,297 (12.6%) of the original participants were deceased. The sample is broadly representative of older White Americans with at least a high school education (U.S. Census Bureau, 2003). On average, the sample was 51.6% female.

We focused our analysis on the years in which job satisfaction was assessed, which were three waves: 1975, 1992/1993, and 2004. We should note that the job satisfaction item was phrased slightly differently in each wave. The 1975 item was "How satisfied are you with current/last job as a whole?" the 1992/1993 item was "All things considered, how satisfied are you with your job as a whole?" and the 2004 item was "All things considered, how satisfied were you with your job as a whole, were you very satisfied?" The scale ranged from 1= *very unsatisfied* 4 = *very satisfied*. The *N* for each wave was 4,090.

ALP. The ALP includes waves collected in 1996, 2001, and 2006 (for a review of the ALP, see Lepisto, 1997). Although this panel primarily focuses on developmental changes in consumer attitudes and behavior, the most recent three waves included measures of job satisfaction. A total of 292 of the 1,008 individuals who responded to the T1 questionnaire held full-time employment and were thus eligible for inclusion in the current study. Of these 292 individuals, 120 remained employed throughout the duration of the study and provided reasonably complete job satisfaction data for all three waves. These 120 participants were thus used in our analyses. The average ALP participant was 48 years old at T1. Sixty-one percent were male and 93% were Caucasian.

Job satisfaction was assessed within the ALP dataset using three items from Hackman and Oldham (1980). Each item was on a seven-point scale from 1 = *strongly disagree* to 7 = *strongly agree*. A sample item is, "Generally speaking, I am very satisfied with my job." The internal consistency reliabilities (alphas) for the job satisfaction scale were .75 for T1, .76 for T2, and .71 for T3.

Analyses

We tested Hypothesis 1 by comparing mean levels of job satisfaction against the neutral point of the scale. We tested Hypothesis 2 by comparing mean levels of job satisfaction across time. For the GSS, we conducted a one-way ANOVA with job satisfaction as the outcome and the year of the wave as the independent variables because it was not possible to reliably link job satisfaction scores to particular participants across different years. For the WLS and ALP samples, we conducted repeated measures ANOVAs. We focused on the effect sizes (η^2) because the large sample sizes could cause practically insignificant effects to be statistically significant. For each of the three datasets, we also plotted mean job satisfaction by year, thus creating a linear trend line. The results of these analyses are reported below.

Results

Tables 1, 2, and 3 present the means and standard deviations for job satisfaction across time for the GSS, WLS, and ALP, respectively. To test Hypothesis 1, which predicted that workers would generally report job satisfaction levels that were higher than the satisfaction scale's midpoint, we compared the mean level of job satisfaction against the neutral point of the scale. For both

the GSS and WLS samples, the "neutral' score was 2.5. The "neutral" score for the ALP data was 4. In general, most of the mean job satisfaction scores were nearly one standard deviation unit above the neutral points of their respective scales. In addition, the means for the GSS and WLS samples generally fell in between the *fairly satisfied* (3) and *very satisfied* (4) scale points. Taken together, these results support Hypothesis 1.

Table 1
Means, Standard Deviations and Standardized d *Scores for the GSS Sample*

Year	M	*SD*	*N*	Standardized *d*
1972	3.30	0.80	944	1.00
1973	3.33	0.80	1,141	1.03
1974	3.29	0.83	1,223	0.95
1975	3.37	0.81	1,165	1.07
1976	3.34	0.82	1,185	1.02
1977	3.32	0.77	1,262	1.06
1978	3.33	0.82	1,280	1.02
1980	3.25	0.85	1,246	0.88
1982	3.26	0.85	1,224	0.89
1983	3.32	0.81	1,333	1.00
1984	3.20	0.91	1,208	0.77
1985	3.29	0.82	1,235	0.96
1986	3.35	0.75	1,162	1.13
1987	3.22	0.84	1,165	0.85
1988	3.29	0.80	1,153	0.99
1989	3.27	0.82	1,206	0.95
1990	3.28	0.80	1,041	0.99
1991	3.26	0.80	1,149	0.96
1993	3.23	0.82	1,228	0.89
1994	3.29	0.79	2,338	1.00
1996	3.25	0.82	2,313	0.92
1998	3.31	0.79	2,216	1.03
2000	3.30	0.77	2,162	1.03
2002	3.33	0.80	1,061	1.04
2004	3.32	0.82	1,397	1.01
2006	3.32	0.80	2,177	1.03
Total	3.29	0.81	36,214	0.98

Note. Standardized *d* scores were computed against the "neutral" score of 2.5.

Table 2
Means, Standard Deviations and Standardized d *Scores for the WLS Sample*

Year	M	*SD*	Standardized *d*
1975	3.50	0.66	1.52
1992	3.42	0.69	1.33
2004	3.51	0.69	1.46

Note. *N* = 4,090. Standardized *d* scores were computed against the "neutral" score of 2.5.

Table 3
Means, Standard Deviations and Standardized d *Scores for the ALP Sample*

Year	M	*SD*	Standardized *d*
1996	5.22	1.11	1.10
2001	5.21	1.24	0.98
2006	5.50	1.10	1.36

Note. *N* = 120. Standardized *d* scores were computed against the "neutral" score of 4.

Figures 1, 2 and 3 plot job satisfaction means as a function of time for the GSS, WLS, and ALP, respectively. Together, these three figures suggest that within each of the archival datasets, job satisfaction scores were relatively high, and there appeared to be no systematic increases or decreases in job satisfaction over time. We tested for mean differences using ANOVAs. The ANOVA results for the GSS data indicate that the job satisfaction mean did vary across time ($F(25, 36188) = 3.94$, $p < .01$), but effect size was very small ($\eta^2 = .002$). In addition, as shown in Table 1, the mean job satisfaction scores ranged from 3.20 to 3.37. This suggests that there was not much change in mean job satisfaction levels over time. Similar results were found for the WLS sample (see Table 2). The repeated measures ANOVA revealed significant differences ($F(2, 8178) = 26.52$, $p < .01$), but the effect size was again very small ($\eta^2 = .014$). The means ranged from 3.42 to 3.51. Finally, the results for the ALP data were consistent with the other two data sets (see Table 3). Although the repeated measures ANOVA suggested significant mean differences ($F(2, 238) = 4.25$, $p = .02$), the effect size ($\eta^2 = .034$) suggested that effect was small. In addition, the means ranged from 5.21 to 5.50. As a whole, these results provide support for Hypothesis 2.

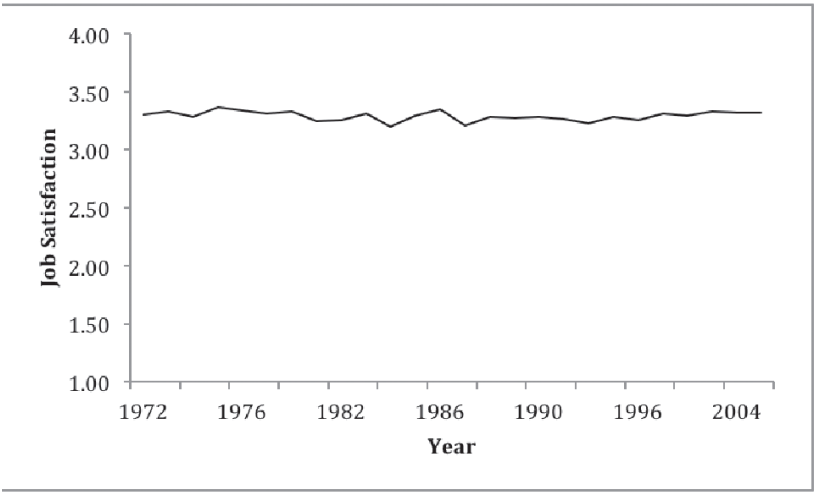


Figure 1. **Trend in Mean Levels of Job Satisfaction Based on the General Social Survey Between the Years of 1972 and 2006**
(1 = *very dissatisfied* and 4 = *very satisfied*)

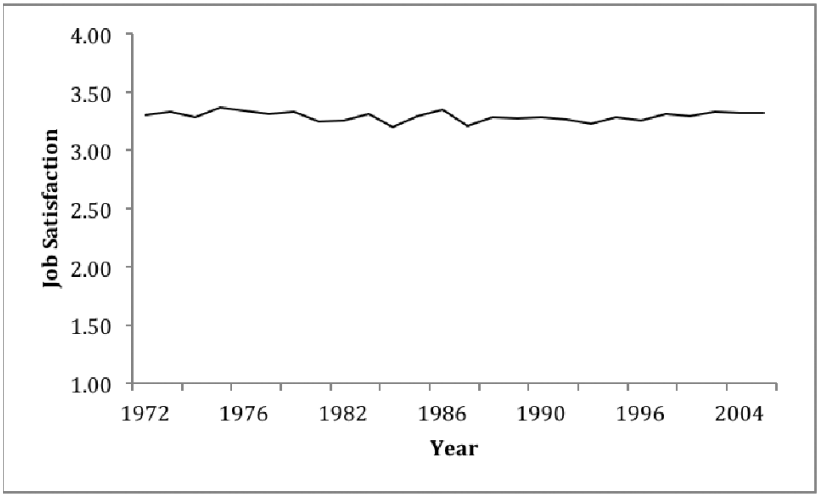


Figure 2. **Trend in Mean Levels of Job Satisfaction Based on the Wisconsin Longitudinal Study Between the Years of 1975 and 2004**
(1 = *very unsatisfied* and 4 = *very satisfied*)

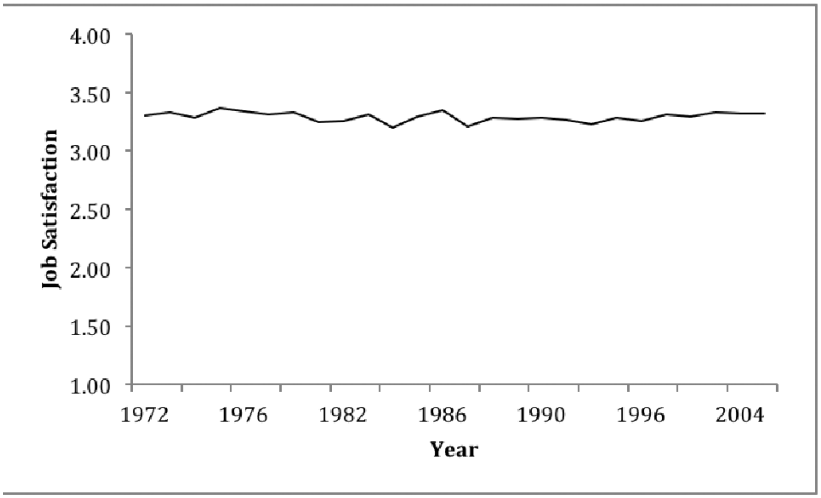


Figure 3. **Trend in Mean Levels of Job Satisfaction Based on the Adult Longitudinal Panel Between the Years of 1996 and 2006**
(1 = *strongly disagree* and 7 = *strongly agree*)

Discussion

Analyses conducted using three independent multiwave datasets supported our predictions that mean job satisfaction levels would be relatively high (Hypothesis 1) and would not differ systematically across time (Hypothesis 2).

Specifically, across the datasets, mean job satisfaction scores were roughly half-way between the neutral point of the scale and the scale point reflecting the high possible level of satisfaction. Furthermore, although job satisfaction varied to a small extent from wave to wave, these changes appear to be random fluctuations rather than systematic increases or decreases. It is of note that these findings are contrary to the assumptions of many laypeople, which are illustrated by the quotes at the beginning of the current paper.

Theoretical and Practical Implications

The finding that mean job satisfaction levels are uniformly high from decade to decade has important implications: It suggests that workers are highly adept at adjusting to their environments (see Bowling, Beehr, Wagner, & Libkuman, 2005; Landy, 1978). Over the course of the three longitudinal archival studies, several changes have occurred within the world of work. These changes, which include countless technical innovations, increases in the average American's wealth, general economic upturns and downturns, changes in employment law, and societal changes, such as women's increased role within the workplace, have drastically transformed the nature of the workplace. Although one might have expected that mean job satisfaction levels would have changed as a result, this was clearly not the case. In short, workers as a whole seem to have adapted to these environmental changes.

The possibility that people generally adjust to large-scale environmental conditions has particular relevance to today's workers, given recent global economic conditions. On one hand, many people may assume that the generally negative mood produced by the recent economic recession may "spill over" into employees' attitudes toward their jobs. Furthermore, the recent recession could result in negative changes to one's work environment, such as increased workloads and pay cuts, which in turn contribute to job dissatisfaction. Such effects, however, might be largely counteracted by a competing process in which many workers may be more satisfied with their jobs during an economic downturn because they are grateful to simply be employed (Agell & Lundborg, 1995; Akerlof & Yellen, 1990).

Limitations and Future Research

We should note two limitations of this research. First, the GSS and WLS each utilized single-item job satisfaction measures. Although single-item measures in general have been the target of some criticism, previous research suggests that job satisfaction can be effectively assessed with a single item (Wanous, Reichers, & Hudy, 1997).

Second, all of the data used in the current research were collected from American workers. Future research should attempt to replicate our findings within non-US samples. Such research might be especially insightful if conducted within nations that have experienced considerable cultural, political, or

economic change. Although the human predisposition toward generally high levels of happiness (Cacioppo et al., 1999; Diener & Diener, 1996) may typically cause mean job satisfaction levels to remain more or less stable from year to year, it remains to be seen if job satisfaction can remain stable in the face of fundamental society-level changes, such as a transition from a communist to a capitalist economy or from a dictatorial government to a democracy.

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News From the SIOP–United Nations Team: SIOP Has Joined the UN Global Compact and So Can You!

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Sean Cruse
United Nations Global Compact

The mission of SIOP's United Nations Team is to leverage work-, worker-, and employment-related theory, research, and practice to help advance the goals of the United Nations and increase I-O psychologists' potential for global impact. The UN team's role is to educate, advocate, and make direct contributions to the programs and goals of the United Nations and to connect the work of the United Nations with that of the field of I-O psychology.

As a first initiative, the SIOP UN Team has been exploring ways in which SIOP can more closely align with the UN Global Compact. Launched in 2000, the Global Compact is a strategic policy initiative that provides a framework for companies that endorse sustainability and responsible business practices. The Global Compact is a voluntary initiative that is organized around 10 principles in the areas of human rights, labor, environment, and anticorruption (see Table 1). The goal is to "mainstream" these principles around the world, as well as to align businesses with broader UN goals. The SIOP annual conference has featured theme tracks over the past few years that directly align with the goals of the UN Global Compact, including for example corporate social responsibility, workplace discrimination, and environmental sustainability. In addition, many I-O psychologists are already actively engaged in activities that support this initiative (e.g., Berry, Reichman, & Schein, 2008; Berry, Reichman, Klobas, MacLachlan, Hui, & Carr, 2011; Carr, 2010; Carr, MacLachlan & Furnham, 2012; Frese, Brantjes, & Hoorn, 2002; Leftkowitz, 2008; Olson-Buchanan, Koppes Bryan & Thompson, 2013; Schein, 2003; Scott, 2012).

Both business and nonbusiness entities can join the UN Global Compact. Nonbusiness entities include academic institutions, business associations (like SIOP), cities, civil society organizations, labor organizations, and public-sector organizations. Each category of membership has its own framework, and in this article we will focus on corporate and academic participation only, in that they encompass the majority of SIOP member employers. Details about membership can be found on the UN Global Compact website: www.unglobalcompact.org.

Table 1
The UN Global Compact's Ten Principles

Human rights
• Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
• Principle 2: make sure that they are not complicit in human rights abuses.

Table 1 (continued)

Labor
- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- Principle 4: the elimination of all forms of forced and compulsory labor;
- Principle 5: the effective abolition of child labor; and
- Principle 6: the elimination of discrimination in respect of employment and occupation.

Environment
- Principle 7: Businesses should support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility; and
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anticorruption
- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Corporate Participation

Corporate participation in the Global Compact involves a commitment to the implementation, disclosure, and promotion of the 10 principles. A company joining the initiative is expected to:

- Make the Global Compact and its principles an integral part of business strategy, day-to-day operations, and organizational culture
- Incorporate the Global Compact and its principles in the decision-making processes of the highest-level governance body (e.g., the board of directors)
- Contribute to broad development objectives (including the Millennium Development Goals) through partnerships
- Integrate in its annual report (or in a similar public document, such as a sustainability report) a description of the ways in which it implements the principles and supports broader development objectives (also known as the Communication on Progress)
- Advance the Global Compact and the case for responsible business practices through advocacy and active outreach to peers, partners, clients, consumers, and the public at large.

Academic Participation

University participation involves a similar commitment to the 10 principles in their operations but may also involve integrating the Global Compact principles into course curricula and supporting applied research and thought leadership in relation to the 10 principles. There also exists a special program—Principles for Responsible Management Education (PRME)—for business schools and management-related academic units providing an engagement framework to advance corporate responsibility through the incorporation of six universal principles into curricula and research (see Table 2). These principles have been developed by an international task force of 60 deans, university presidents, and

official representatives of leading business schools and follow from a recommendation of all academic stakeholders of the Global Compact. The PRME initiative is governed jointly by the Global Compact Office and other members of the PRME Steering Committee, such AACSB and other such bodies worldwide.

Table 2
The Principles for Responsible Management Education

- Principle 1 | Purpose: We will develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy.
- Principle 2 | Values: We will incorporate into our academic activities and curricula the values of global social responsibility as portrayed in international initiatives such as the United Nations Global Compact.
- Principle 3 | Method: We will create educational frameworks, materials, processes and environments that enable effective learning experiences for responsible leadership.
- Principle 4 | Research: We will engage in conceptual and empirical research that advances our understanding about the role, dynamics, and impact of corporations in the creation of sustainable social, environmental and economic value.
- Principle 5 | Partnership: We will interact with managers of business corporations to extend our knowledge of their challenges in meeting social and environmental responsibilities and to explore jointly effective approaches to meeting these challenges.
- Principle 6 | Dialogue: We will facilitate and support dialog and debate among educators, students, business, government, consumers, media, civil society organisations and other interested groups and stakeholders on critical issues related to global social responsibility and sustainability.

Benefits of Participation

Benefits of Global Compact/PRME membership include being viewed as a leader of social change surrounding corporate citizenship and sustainability. Likewise, academic institutions are able to stay "ahead of the curve" by adopting an internationally recognized framework for adaptation and change. Further, a new generation of students and consumers are making demands with regard to sustainability and prosocial corporate leadership. Businesses and universities operating according to these principles will not only contribute to positive social change but also gain competitive advantage by virtue of meeting the needs and expectations of multiple stakeholder groups. In sum, these initiatives will increasingly enhance responsible performance, adaptation to changing demands, and competitiveness in the global marketplace.

SIOP's Current and Future Roles

As a starting point in this campaign, we are happy to report that SIOP painlessly went through the application process and has been accepted as an official member of the UN Global Compact (Scott, 2011)! By joining the Global Compact, SIOP's UN Team has committed to organizing initiatives that will attract new participants through outreach and awareness raising; organizing learning events, workshops, and training for members on the topic

of corporate citizenship; and functioning as a platform for the sharing of experiences and ideas for research and advocacy around human rights, labor, environmental sustainability, and anticorruption in organizations.

As its first initiative as a Global Compact member, our team will be developing a toolkit and support structure for assisting SIOP members in approaching their organizations and universities about joining the Global Compact. We will also be collecting data on members' employers who are already participating in Global Compact efforts with the goal of setting up a network for broadening participation and identifying unique ways in which the field of I-O psychology can contribute to positive social change related to worker rights and the social responsibility of organizations.

What can you do? Get involved!

If your employer is already a member of the Global Compact, please let us know by sending an e-mail to Ishbel McWha (ishbel@mcwha.org)

Talk to your organization's decision makers about joining the UN Global Compact and signing on to the 10 Principles. Joining is easy, and is done through the Global Compact website: www.unglobalcompact.org.

If you are in a university environment, you can approach your dean or department head about signing on to the Principles for Responsible Management Education. More information about PRME can be found here: www.unprme.org.

Please consider the SIOP UN Team as a support network in communicating with your employer (contact any of us at any time), and be on the lookout for our upcoming toolkits and support documents.

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The 2011 SIOP Graduate Program Benchmarking Survey Part 3: Curriculum and Competencies

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This is the third installment of the report on the 2011 SIOP Graduate Program Survey. Having addressed general program features and admissions requirements in the first two articles, we turn here to courses and competencies. Programs differ definitively in the courses they offer and require students to take. We asked respondents to describe their programs with respect to both substantive (e.g., personnel selection, leadership) and methodological (e.g., research methods, statistics) content areas. We also asked how much they focus on each of 25 competencies identified by SIOP (1999) as relevant to I-O psychology practice.

As in the earlier articles, results are provided for all responding programs combined and in terms of a 2 x 2 breakout of master's and doctoral programs in both psychology and business/management departments. Also as in the earlier works, non-American programs are excluded due to lack of representation, and norms are reported separately for Gibby, Reeve, Grauer, Mohr, and Zickar's (2002) top-10 most productive doctoral programs, and Kraiger and Abalos' (2004) top-10 master's and doctoral programs (two separate lists) based on student ratings. Median and range data are given, in addition to means and standard deviations, as many distributions are skewed. Nominal data are reported as frequencies and percentages, and F and χ^2 results are provided for continuous and nominal DVs, respectively. To save space, most tables are available online at http://www.utulsa.edu/TIP-curriculum-tables. Finally, norms are provided only when N is 3 or more. We start with course frequency and requirement levels.

Curriculum

A list of 23 substantive and 15 methods topics was developed for the survey as reasonably comprehensive of I-O course content. We asked how often in the past 5 years (from 2011) each course had been offered and whether the course was (a) required, (b) one of several options within a limited set (e.g., "must take 3 of these 5 courses"), or (c) an elective (i.e., optional).

One aim in this section was to assess relative curricular emphasis on I versus O content. The I-O distinction is blurry, at best. For present purposes, industrial psychology is understood to include topics such as job analysis, personnel recruitment and selection, training, and performance appraisal; and organizational psychology to include topics such as work attitudes, motivation, leadership, teams, and organizational development. Whereas I psychology tends to focus on applied HR functions targeting individual differences and their

measurement, O psychology tends to target broader psychological processes, organizational systems, and relevant theory. This is not to say I psychology ignores theory or O psychology eschews measurement. The two broad subareas, in fact, overlap in many ways (e.g., selecting good leaders benefits from good theory and good measurement), creating something of a false dichotomy when directly compared. Nonetheless, we expect most readers will recognize distinctions along the noted lines, and current results bear consideration in such terms.

The first three substantive courses in our list are "General I-O (e.g., Survey of I-O)," "General I (e.g., Survey of I)," and "General O (e.g., Survey of O)." Norms for each of those courses are informative, but their separation creates a "split-vote" problem. Thus, a program might offer both General I and General O courses but not a combined General I-O course. In order to gauge the comprehensive balance of general I and O content offerings, we aggregated data across programs offering a General I-O course and/or both a General I and a General O course. Corresponding results are reported here as "Combined Comprehensive."[1] A similar issue arises in judging emphasis on separate I and O domains. For example, if a program offers a General I-O course and a General O course but no General I course, the General I-O course warrants splitting between I and O, augmenting the O-only value by half of the General I-O value and augmenting the I-only value (from 0) to half of the General I-O value. These results are presented as "General I Augmented" and "General O Augmented."

In tracking the requirement levels for general course content aggregated as above, we adopted the higher requirement level when input courses are offered at different levels. For example, if a General I-O course is required, a General O course is an elective, and a General I course is not offered, the requirement level for Combined Comprehensive in this case would be "required," as would the levels for both General I Augmented and General O Augmented, owing to the General I-O course being required (implying that both general I and general O material is required). "Required" would also be assigned to all three aggregated variables if both General I and General O courses are required, but a General I-O course is an elective or not offered. Albeit somewhat complex, these aggregations permit more accurate description of the emphasis programs place on I-O as a comprehensive domain and on I and O as distinct domains.

Table 1 presents norms for frequency of substantive course offerings over 5 years. Courses are organized conceptually into several categories, and averages per year are shown for each category and overall. Several points bear noting here. Regarding I and O as distinct yet broad domains, General O content is offered more frequently than General I content (means = 3.74 vs. 2.97, respectively). This trend appears to reverse in the specialized courses, the three most common targeting traditional I topics: training and development, personnel recruitment/selection/placement, and performance appraisal (range of means = 2.19 to 2.74), and the next four targeting traditional O topics: leadership/man-

[1] Programs offering only General I or only General O are excluded from the combined comprehensive category.

Table 1
*Frequency of Substantive Courses Offered in the Past 5 Years for All Programs Combined (*N = *118)*

Category/course	Mean	*SD*	Skew	Median	Min	Max[a]
General: observed						
General I-O (e.g., "Survey of I-O")	1.95	2.46	.61**	0	0	6
General I (e.g., "Survey of I")	2.00	2.31	.47*	0	0	6
General O (e.g., "Survey of O")	2.76	2.32	-.17	3	0	6
Average per year	*1.34*	*.77*	*.12*	*1.2*	*.0*	*3.2*
General: aggregated[b]						
Combined comprehensive	3.95	2.55	.01	5.0	.0	11.0
General I augmented	2.97	2.15	.30	2.8	.0	8.0
General O augmented	3.74	2.08	-.08	3.8	.0	8.0
Industrial psychology						
Job Analysis	1.32	1.99	1.15**	0	0	6
Personnel recruitment/selection/placement	2.60	2.17	-.01	3	0	6
Training and development	2.74	2.12	-.04	3	0	6
Performance appraisal	2.19	2.18	.37	2	0	6
Job evaluation/compensation	.78	1.69	2.05**	0	0	6
Employment law	.76	1.53	1.97**	0	0	6
Average per year	*2.08*	*1.73*	*.56***	*1.8*	*.0*	*6.2*
Organizational psychology						
Work motivation	1.75	1.94	.70**	1	0	6
Work attitudes	1.35	1.98	1.21**	0	0	6
Work groups/teams	1.65	1.92	.81**	1	0	6
Leadership/management	2.18	2.15	.39	2	0	6
Judgment/decision making	.51	1.26	2.72**	0	0	6
Organizational development	1.94	2.39	.61**	0	0	6
Organizational theory	1.26	2.03	1.29**	0	0	6
Work/family	.36	.87	2.53**	0	0	4
Work stress	.53	1.30	2.85**	0	0	6
Average per year	*2.30*	*1.67*	*.87***	*2.0*	*.0*	*8.0*
Mixed/miscellaneous						
Human factors	.43	1.23	3.10**	0	0	6
Consulting/business skills	1.54	2.20	1.00**	0	0	6
Workforce diversity	1.04	1.83	1.58**	0	0	6
Workforce aging	.15	.65	4.81**	0	0	4
Individual differences in the workplace	1.03	1.80	1.47**	0	0	6
Average per year	*.84*	*1.00*	*1.18***	*.4*	*.0*	*4.0*
Overall average per year	*6.56*	*3.59*	*.85***	*6.4*	*.6*	*17.4*

Excluding non-US. *p < .05, **p < .01, two-tailed

[a] Response options capped at 6.

[b] Combined comprehensive = general I-O and/or (general I + general O) General I augmented = general I + half of general I-O

General O augmented = general O + half of general I-O

agement, organizational development, work motivation, and work groups/teams (range = 1.65 to 2.18). The apparently higher frequency of I courses is offset, however, by the larger number of O courses (nine vs. six). Average specialized course offerings per year are 2.1 and 2.3 in I and O, respectively. All told, I and O content is fairly balanced, with O favored slightly. The overall average per year of around 6.6 (including general observed courses) is a core benchmark for substantive I-O course offerings across all contributing programs.

Tables 2 and 3 present substantive course frequency norms for the 2 x 2 breakout; test results are reported in Table A1 (online), and category means are plotted in Figure A1 (online). Key comparative findings are as follows, beginning with department type effects. First, general I-O and general I and O courses (separately) are offered more often in psychology departments. This holds for both the observed and aggregated data. For comprehensive I-O and augmented I content, the ratio approaches 3:1; for augmented O content, 2:1; and for general courses combined, 2.2:1. Second, core I-related courses are offered considerably more often in psychology-based programs, ratios ranging from around 4:1 for job analysis and personnel selection to 7.5:1 for performance appraisal. Other I-related courses (job evaluation/compensation, employment law) are offered infrequently in both department types. The ratio for all I-related courses combined exceeds 4:1. Third, the psychology > business/management trend holds for several mainstream O-related courses, albeit abated: the ratios for work motivation and work groups/teams are around 2.5:1, and, for work Attitudes, about 5:1. Courses on work/family issues, work stress, and aging are available only in psychology departments (but rarely). Showing the only opposite effect, organizational theory courses are more prevalent in business/management departments (ratio = 2.4:1). Leadership courses are offered with roughly equal frequency (*N*-weighted means = 2.1 for psychology vs. 1.8 for business-management). Combining all O-related courses, the ratio is 1.5:1. Combining courses in all substantive categories, psychology department offerings outnumber business/management offerings by a 2.2:1 margin (around 7 per year vs. around 3).

Turning to degree type effects, fewer differences emerge. A notable exception is that training courses are twice as common in master's compared to doctoral programs, perhaps reflecting the especially practical relevance of training. Interactions between degree and department types suggest more nuanced effects. Leadership/management courses are especially more common in business-management master's programs (mean = 3.2) compared to business-management doctoral programs (1.1), whereas the difference is muted in psychology departments (mean = 2.1 for both degree types). Similar patterns are evident for courses on organizational development, consulting/business skills, organizational theory, and judgment/decision making (with more modest frequencies in the latter case).

Summarizing the 2 x 2 findings on frequency of substantive course offerings, two visible trends are that (a) psychology departments tend to offer

Table 2

Frequency of Substantive Courses Offered in the Past 5 Years in Master's and Doctoral Programs in Psychology Departments

	Master's programs ($N = 54$)						Doctoral programs ($N = 41$)					
Category/Course	Mean	*SD*	Skew	Median	Min	Max[a]	Mean	*SD*	Skew	Median	Min	Max[a]
General: observed												
General I-O (e.g., "Survey of I-O")	2.07	2.53	.53	0	0	6	1.95	2.48	.58	0	0	6
General I (e.g., "Survey of I")	2.11	2.38	.38	0	0	6	2.41	2.26	.07	2	0	6
General O (e.g., "Survey of O")	2.83	2.38	-.22	4	0	6	3.10	2.19	-.52	4	0	6
Average per year	*1.40*	*.80*	*.18*	*1.2*	*.0*	*3.2*	*1.49*	*.66*	*-.01*	*1.6*	*.0*	*3.0*
General: aggregated[b]												
Combined comprehensive	4.14	2.67	.13	5.0	.0	11.0	4.41	2.11	-.02	5.0	.0	10.0
General I augmented	3.15	2.28	.32	3.0	.0	8.0	3.39	1.85	.09	3.0	.0	7.5
General O augmented	3.87	2.13	-.03	4.5	.0	8.0	4.07	1.78	-.20	5.0	.0	7.5
Industrial psychology												
Job analysis	1.57	2.12	.89**	0	0	6	1.24	1.92	1.28**	0	0	6
Personnel recruitment/selection/placement	3.17	2.10	-.51	4	0	6	2.54	2.09	.08	3	0	6
Training & development	3.80	1.74	-.88**	5	0	6	2.07	1.98	.52	2	0	6
Performance appraisal	2.93	2.17	-.21	3	0	6	1.95	2.06	.65	1	0	6
Job evaluation/compensation	1.04	1.93	1.61**	0	0	6	.44	1.36	3.26**	0	0	6
Employment law	1.06	1.74	1.38**	0	0	5	.49	1.23	2.89**	0	0	5
Average per year	*2.71*	*1.67*	*.15*	*2.7*	*.0*	*6.2*	*1.75*	*1.67*	*1.05***	*1.0*	*.0*	*6.0*
Organizational psychology												
Work motivation	1.96	2.06	.52	2	0	6	2.02	1.80	.56	2	0	6
Work attitudes	1.78	2.19	.77*	1	0	6	1.41	1.99	1.20**	0	0	6
Work groups/teams	1.87	2.06	.57	1	0	6	1.49	1.68	.98*	1	0	5
Leadership/management	2.11	2.24	.39	2	0	6	2.05	1.96	.58	2	0	6
Judgment/decision making	.44	1.33	3.19**	0	0	6	.59	1.16	2.20**	0	0	5
Organizational development	2.22	2.43	.35	1	0	6	1.34	2.12	1.25**	0	0	6
Organizational theory	1.19	1.99	1.30**	0	0	6	.78	1.77	2.09**	0	0	6
Work/family	.39	.94	2.53**	0	0	4	.44	.90	2.06**	0	0	3
Work stress	.70	1.54	2.30**	0	0	6	.49	1.14	3.36**	0	0	6
Average per year	*2.53*	*1.89*	*.76**	*2.2*	*.0*	*8.0*	*2.12*	*1.47*	*1.07***	*2.0*	*.0*	*6.0*

Table 2 (continued)

	Master's programs (N = 54)						Doctoral programs (N = 41)					
	Mean	*SD*	Skew	Median	Min	Max[a]	Mean	*SD*	Skew	Median	Min	Max[a]
Mixed/Miscellaneous												
Human factors	.48	1.26	2.69**	0	0	5	.41	1.20	3.20**	0	0	5
Consulting/business skills	1.44	2.11	1.09**	0	0	6	1.59	2.22	.98*	0	0	6
Workforce diversity	1.02	1.73	1.49**	0	0	5	1.10	1.81	1.57**	0	0	6
Workforce aging	.17	.64	4.85**	0	0	4	.22	.82	3.82**	0	0	4
Individual differences in the workplace	1.09	1.84	1.30**	0	0	5	1.10	1.93	1.51**	0	0	6
Average per year	*.84*	*.99*	*1.12***	*.5*	*.0*	*3.6*	*.88*	*1.04*	*1.32***	*.6*	*.0*	*4.0*
Overall average per year	*7.49*	*3.63*	*.79**	*7.0*	*1.6*	*17.4*	*6.24*	*3.40*	*1.33***	*6.0*	*2.0*	*16.8*

Excluding non-US and on-line only. *$p < .05$, **$p < .01$, two-tailed

[a]Response options capped at 6.

[b]Combined comprehensive = general I-O and/or (general I + general O) General I augmented = general I + half of general I-O General O augmented = general O + half of general I-O

Table 3

Frequency of Substantive Courses Offered in the Past 5 Years in Masters and Doctoral Programs in Business/Management Departments

	Master's programs (N = 5)						Doctoral programs (N = 10)					
Category/course	Mean	*SD*	Skew	Median	Min	Maxa	Mean	*SD*	Skew	Median	Min	Max[a]
General: observed												
General I-O (e.g., "Survey of I-O")	.00	.00	.91	0	0	0	1.00	1.70	1.87*	0	0	5
General I (e.g., "Survey of I")	1.20	2.68	.91	0	0	6	.60	1.07	1.69*	0	0	3
General O (e.g., "Survey of O")	1.20	2.68	.91	0	0	6	2.10	2.02	.23	3	0	5
Average per year	*.48*	*1.07*	*2.24**	*.0*	*.0*	*2.4*	*.74*	*.47*	*-.38*	*.9*	*.0*	*1.4*
General: aggregated[b]												
Combined comprehensive	1.20	2.68	2.24*	.0	.0	6.0	1.70	2.00	.93	1.0	.0	5.0
General I augmented	1.20	2.68	2.24*	.0	.0	6.0	1.10	1.24	.53	.5	.0	3.0
General O augmented	1.20	2.68	2.24*	.0	.0	6.0	2.60	1.87	-.04	2.8	.0	5.0

Table 3 (continued)

	Master's programs (N = 5)						Doctoral programs (N = 10)					
	Mean	*SD*	Skew	Median	Min	Max[a]	Mean	*SD*	Skew	Median	Min	Max[a]
Industrial psychology												
Job analysis	.80	1.10	.91	0	0	2	.10	.32	3.16**	0	0	1
Personnel recruitment/selection/placement	.80	1.10	.91	0	0	2	.70	1.16	1.26	0	0	3
Training and development	1.00	1.22	.91	1	0	3	.40	.84	1.78*	0	0	2
Performance appraisal	.60	.89	.91	0	0	2	.20	.63	3.16**	0	0	2
Job evaluation/compensation	.80	1.10	.91	0	0	2	.40	.84	1.78*	0	0	2
Employment law	.80	1.10	.91	0	0	2	.00	.00	.00	0	0	0
Average per year	*.96*	*1.07*	*.41*	*.6*	*.0*	*2.2*	*.36*	*.63*	*1.82***	*.0*	*.0*	*1.8*
Organizational psychology												
Work motivation	.20	.45	.91	0	0	1	1.10	1.85	1.39	0	0	5
Work attitudes	.40	.55	.91	0	0	1	.30	.95	3.16**	0	0	3
Work groups/teams	1.00	1.22	.91	1	0	3	.50	1.08	1.98*	0	0	3
Leadership/management	3.20	2.39	.91	3	1	6	1.10	1.73	1.58*	0	0	5
Judgment/decision making	1.40	1.52	.91	1	0	3	.00	.00	.00	0	0	0
Organizational development	3.80	2.68	.91	5	1	6	.00	.00	.00	0	0	0
Organizational theory	4.00	2.74	.91	6	1	6	1.60	1.51	1.10	2	0	5
Work/family	.00	.00	.91	0	0	0	.00	.00	.00	0	0	0
Work stress	.00	.00	.91	0	0	0	.00	.00	.00	0	0	0
Average per year	*2.80*	*1.17*	*.61*	*2.4*	*1.6*	*4.4*	*.92*	*.78*	*1.07*	*.8*	*.0*	*2.6*
Mixed/miscellaneous												
Human factors	.40	.55	.91	0	0	1	.00	.00	.00	0	0	0
Consulting/business skills	2.60	2.70	.91	1	1	6	.00	.00	.00	0	0	0
Workforce diversity	1.00	2.24	.91	0	0	5	.10	.32	3.16**	0	0	1
Workforce aging	.00	.00	.91	0	0	0	.00	.00	.00	0	0	0
Individual differences in the workplace	.20	.45	.91	0	0	1	.40	.97	2.66**	0	0	3
Average per year	*.84*	*.78*	*.81*	*.6*	*.0*	*2.0*	*.10*	*.19*	*2.27***	*.0*	*.0*	*.6*
Overall average per year	*5.08*	*2.59*	*1.45*	*4.6*	*2.4*	*9.4*	*2.12*	*1.22*	*.74*	*2.0*	*.6*	*4.6*

Excluding non-US and on-line only. *$p < .05$, **$p < .01$, two-tailed

[a]Response options capped at 6.

[b]Combined comprehensive = general I-O and/or (general I + general O) General I augmented = general I + half of general I-O General O augmented = general

more core I and, to a lesser extent, core O content courses than do business-management departments, and (b) master's programs in business-management departments tend to offer more courses on select, mostly O-related, topics (e.g., organizational development, organizational theory, leadership/management). The requirement levels of substantive courses are examined next.

Notably, as is evident in the right-most column of Table A1, frequencies are significantly higher for "Required" courses in 17 of 26 cases (23 observed plus the 3 aggregated general courses). Findings for requirement level, accordingly, are somewhat redundant with those described above for course frequencies. Overall normative results for requirement levels of substantive courses are reported in Table A2 (online). The first column of data shows the number (and percentage) of programs offering each course at least once in the past 5 years (Part 1 of the question). The second column shows the number of programs indicating the requirement level per course (Part 2). The next three columns present the percentages of offering programs designating the given course at each of the three requirement levels. The last column is the product of the "% Required" and "*N* offered (%)" columns, yielding an estimate of the overall percentage of programs requiring the given course.[2] Results in Table A2 are noteworthy in several respects.

First, general I-O courses (combined and separate I and O) have the highest requirement rates: 76% to 85%, for the aggregated courses, suggesting a large majority of I-O programs require students to master broad I-O content in preparation for more specialized inquiry. Second, beyond that, no course exceeds an overall requirement rate of 42%, suggesting diversity across programs in the sorts of content I-O students are expected to master in earning their degrees. Third, the three most required specialized courses, overall, are I-related: personnel selection (41.2%), training (41.0%), and performance appraisal (33.8%). The next most required courses are leadership/management (29.2%), organizational theory (28.4%), organizational development (27.5%), and work motivation (26.9%). These results mirror those discussed earlier regarding course frequencies, showing relative emphasis on a smaller number of I-related courses compared to O-related courses. Overall, I and O content is fairly evenly balanced with respect to requirement levels.

Tables A3 and A4 present the 2 x 2 breakout for substantive course requirement levels. Small *N*s in business/management programs preclude full 2-way analyses. Limited comparisons were made targeting the number of programs requiring versus not requiring a given course.[3] The rightmost column of Table A3 contains χ^2 results for master's versus doctoral programs in psychology departments and the rightmost column of Table A4 for doctoral programs in business/management versus psychology departments.

Results in Table A3 show that specialized courses in both I and O tend to be required more often in master's programs. For example, personnel

[2] Thus, included as not requiring a given course are programs not offering that course.

[3] For example, 30.9% of psychology master's programs require job analysis (17 of 54 programs), which compares to 16.9% of psychology doctoral programs (7 of 41 programs).

recruitment/selection/placement is a required course in 56% of psychology master's programs, compared to 27% of psychology doctoral programs (ratio = 2.1:1). This trend is not too surprising, given the shorter timeline for a master's degree (typically 2 years compared to 5+ for the doctorate). Departmental comparisons for doctoral programs reveal few significant effects (right column of Table A4). Comprehensive coverage of I and O and general I coverage are more likely to be required in psychology-based programs (ratio = 1.7:1 in each case), whereas general O coverage is required about equally in the two department types. Job evaluation/compensation courses and organizational theory courses are more often required in business/management departments. We turn next to methods course offerings.

Norms for frequency of methods course offerings for all (US) programs are shown in Table 4. Basic research methods is offered most often (averaging 3.7 times over 5 years), followed by entry-level statistics courses (ANOVA and regression = 3.5 each), psychometrics (2.6), Aadvanced research methods (2.4), and multivariate analysis (2.4). Mean frequencies drop off notably after that, the remaining nine (of 15) courses accounting for < 30% of the methods course offerings. Averaging across programs, 5.1 methods courses are offered each year, which compares favorably to the benchmark of 6.6, noted above, for I and O substantive courses. Clearly, methods are a big part of I-O psychology graduate training in most programs.

Table 4
*Frequency of Methods Courses Offered in the Past 5 Years for All Programs Combined (*N = *115)*

Course	Mean	*SD*	Skew	Median	Min	Max[a]
Basic research methods	3.71	2.11	-.92**	5	0	6
Advanced research methods	2.41	2.37	.11	2	0	6
ANOVA (1-way, 2-way, multi-way)	3.52	2.26	-.84**	5	0	6
Regression (simple, hierarchical)	3.50	2.26	-.80**	5	0	6
Multivariate analysis (e.g., MANOVA)	2.38	2.29	.11	3	0	6
Psychometrics	2.60	2.21	-.04	3	0	6
Test development	1.13	1.92	1.32**	0	0	6
Factor analysis (PCA, CFA)	1.43	2.18	1.00**	0	0	6
Item response theory	.54	1.34	2.63**	0	0	6
Generalizability theory	.23	.96	4.32**	0	0	5
Meta-analysis	.67	1.18	1.70**	0	0	5
Structural equation modeling	1.66	1.95	.72**	1	0	5
Hierarchical linear modeling	.83	1.49	1.80**	0	0	5
Nonparametric statistics	.36	1.27	3.47**	0	0	6
Qualitative/mixed methods	.44	1.25	2.91**	0	0	5
Average per year	*5.08*	*2.84*	*.40*	*5.00*	*.20*	*13.00*

Excluding non-US. *p < .05, **p < .01, two-tailed

[a]Response options capped at 6.

Tables 5 and 6 show the 2 x 2 breakout of methods course frequencies. Corresponding significance test results are reported in Table A5 (see also Figure A1). Key points include the following. First, methods courses tend to be offered

Table 5

Frequency of Methods Courses Offered in the Past 5 Years in Master's and Doctoral Programs in Psychology Departments

	Master's programs (N = 53)						Doctoral programs (N = 40)					
Category/Course	Mean	*SD*	Skew	Median	Min	Max[a]	Mean	*SD*	Skew	Median	Min	Max[a]
Basic research methods	3.62	2.29	-.85*	5	0	6	3.75	1.98	-1.09**	5	0	6
Advanced research methods	2.53	2.44	.01	3	0	6	2.40	2.34	.10	2	0	5
ANOVA (one-way, two-way, multi-way)	3.36	2.38	-.66	5	0	6	4.20	1.83	-1.87**	5	0	6
Regression (simple, hierarchical)	3.25	2.41	-.55	5	0	6	4.30	1.73	-2.00**	5	0	6
Multivariate analysis (e.g., MANOVA)	1.87	2.32	.56	0	0	6	3.25	2.06	-.63	4	0	6
Psychometrics	2.58	2.36	.00	3	0	6	3.25	1.92	-.54	3	0	6
Test development	1.43	2.17	.98**	0	0	6	1.28	1.89	1.13**	0	0	5
Factor analysis (PCA, CFA)	1.09	2.09	1.48**	0	0	6	2.28	2.30	.21	2	0	6
Item response theory	.45	1.42	3.14**	0	0	6	.93	1.49	1.50**	0	0	5
Generalizability theory	.32	1.16	3.52**	0	0	5	.23	.92	4.52**	0	0	5
Meta-analysis	.53	1.20	2.38**	0	0	5	.93	1.16	.98*	0	0	4
Structural equation modeling	.89	1.60	1.74**	0	0	5	2.75	1.86	-.12	3	0	5
Hierarchical linear modeling	.30	.93	3.64**	0	0	5	1.45	1.71	1.03**	1	0	5
Nonparametric statistics	.47	1.48	2.86**	0	0	5	.25	.95	4.13**	0	0	5
Qualitative/mixed methods	.32	1.07	3.72**	0	0	5	.28	.96	3.98**	0	0	5
Average per year	*4.60*	*2.89*	*1.02***	*4.00*	*.80*	*13.0*	*6.30*	*2.44*	*.06*	*6.10*	*1.20*	*11.2*

Excluding non-US and on-line only. *$p < .05$, **$p < .01$, two-tailed

[a]Response options capped at 6.

Table 6

Frequency of Methods Courses Offered in the Past 5 Years in Master's and Doctoral Programs in Business/Management Departments

	Master's programs ($N = 3$)						Doctoral programs ($N = 10$)					
Category/Course	Mean	*SD*	Skew	Median	Min	Max[a]	Mean	*SD*	Skew	Median	Min	Max[a]
Basic research methods	2.00	3.46	1.73	0	0	6	3.90	1.52	-.97	5	1	5
Advanced research methods	1.00	1.73	1.73	0	0	3	2.80	2.10	-.12	3	0	5
ANOVA (one-way, two-way, multi-way)	1.00	1.73	1.73	0	0	3	3.50	2.12	-1.00	5	0	5
Regression (simple, hierarchical)	1.67	1.15	1.73	1	1	3	3.80	2.10	-1.48	5	0	5
Multivariate analysis (e.g., MANOVA)	.33	.58	1.73	0	0	1	3.40	1.90	-.72	4	0	5
Psychometrics	1.00	1.73	1.73	0	0	3	1.30	1.83	1.08	0	0	5
Test development	1.00	1.73	1.73	0	0	3	.00	.00	.00	0	0	0
Factor analysis (PCA, CFA)	.00	.00	.00	0	0	0	1.50	2.42	1.04	0	0	5
Item response theory	.00	.00	.00	0	0	0	.10	.32	3.16**	0	0	1
Generalizability theory	.00	.00	.00	0	0	0	.00	.00	.00	0	0	0
Meta-analysis	.00	.00	.00	0	0	0	1.20	1.40	.48	1	0	3
Structural equation modeling	.00	.00	.00	0	0	0	3.20	1.81	-.51	3	0	5
Hierarchical linear modeling	.00	.00	.00	0	0	0	1.90	2.18	.48	1	0	5
Nonparametric statistics	.00	.00	.00	0	0	0	.00	.00	.00	0	0	0
Qualitative/mixed methods	1.00	1.73	1.73	0	0	3	1.50	2.12	1.00	0	0	5
Average per year	*1.80*	*2.60*	*1.72*	*.40*	*.20*	*4.80*	*5.62*	*2.32*	*-1.33*	*6.50*	*1.00*	*8.00*

Excluding non-US and on-line only. *$p < .05$, **$p < .01$, two-tailed

[a]Response options capped at 6.

more often in doctoral than in master's programs. Combining courses, the ratio is 1.4:1. Especially differentiating degree types are courses on hierarchical linear modeling (5.4:1), structural equation modeling (3.4:1), and multivariate analysis (1.8:1). Entry-level statistics courses (ANOVA, regression) are also more common in doctoral programs (1.3:1 in each case), as are factor analysis courses (one-tailed test; ratio = 2:1). That doctoral programs offer more methods courses is understandable given their greater focus on research. Notably, however, degree types are not significantly distinguished by the availability of basic and advanced research methods courses nor psychometrics. The balance in these relatively high-frequency courses suggests a shared methodological foundation for both degree types. Differences in methods course offerings are also evident between department types: Psychometrics and ANOVA courses are more commonly offered in psychology departments (ratios = 2.3:1 and 1.3:1, respectively). Courses on qualitative/mixed methods are more common in business/management departments (ratio = 4.6:1), although the frequencies in this case are modest: 1.4 vs. .3. No significant interactions between degree and department types emerged for methods course frequencies, possibly due in part to the notably low *N* of 3 in the business/management-master's cells.[4]

Requirement levels for methods courses are summarized in Table A6 for all programs. As with the substantive courses, the more frequently offered methods courses are more likely to be required (see right column of Table A5). Two exceptions are advanced research methods and hierarchical linear modeling courses, for which the mode is "Required as one of a limited set of options." The right column of Table A6 shows that basic research methods is required in 74% of I-O programs, followed by entry-level statistics courses (ANOVA = 67%, regression = 65%). Percentages drop below 50% for the remaining courses, suggesting diversity across programs in methods course requirements. Three tiers of required courses are evident: courses required by 40–50% of programs include psychometrics (47%), multivariate analysis (44%), and advanced research methods (44%); courses required by around 20% of programs include those on factor analysis and test development. More advanced specialized courses (e.g., structural equation modeling) are required by < 10% of programs, with meta-analysis at the bottom, required by only about 3% of programs.

Tables A7 and A8 present the 2 x 2 breakouts for methods course requirement levels. As with the substantive course data, presented above, small *N*s in the business/management-master's cells preclude full 2 x 2 comparisons. The rightmost columns in Tables A7 and A8 show test results comparing degree types within psychology departments and department types within doctoral programs, respectively. In sum, (a) methods courses tend to be required more

[4] A program offering no fundamental methods courses might be of concern to some readers. Extended analysis revealed that every (US) program has offered at least one of the first four methods courses at least once in the past 5 years. For three programs, the sum of the first four course frequencies = 1, and, in an additional two programs, the sum = 2. The four course frequencies combined average < 1/year in nine programs (8%).

often in (psychology) doctoral than in master's programs, (b) psychometrics and test development are more often required in psychology (doctoral) programs, and (c) basic research methods and select advanced statistics courses tend to be required more often in business/management (doctoral) programs.

SIOP Competencies

In 1985, SIOP's Education and Training Committee published a set of guidelines for doctoral-level training in I-O psychology, emphasizing a scientific–practitioner orientation in terms of competencies (older versions, e.g. 1974, used a multiple curricula model). Using a similar orientation and approach, the guidelines were updated in 1999 before being approved by APA. The 25 competency areas identified in the 1999 revision relied heavily on the 1985 guidelines but with improvements in a number of areas most notably related to practice (e.g., the addition of consulting and business skills). The scope and specificity of the competencies afforded us a unique basis for benchmarking I-O graduate programs generally and for comparing different program types.

Norms for individual competencies offer specific comparisons. Broader-level comparisons were sought by subjecting the 25 competencies to principal components analysis ($N = 130$[5]), with varimax rotation.[6] Initial runs showed Consumer Behavior defining its own factor. The remaining 24 competencies yielded six interpretable components (minimum eigenvalue = 1.27), together accounting for 61.5% of the variance. The factors and their three strongest loading competencies are as follows (see Table A9 online for full PCA results): Factor 1 = Industrial Psychology (job/task analysis & classification; performance appraisal & feedback; personnel recruitment, Selection & Placement), Factor 2 = Organizational Psychology (consulting & business skills; organization development; leadership & management), Factor 3 = Methods (statistical methods/data analysis; research methods; attitude theory, measurement & change[7]), Factor 4 = Individuals/Teams (individual differences; individual assessment; small group theory & team processes), Factor 5 = General Psychology (history & systems; health & stress in organizations; fields of psychology), and Factor 6 = Applied Cognition (judgment & decision making; human performance/human factors; job evaluation & compensation). Table 7 presents norms for all programs combined, and Tables 8 and 9 for the 2 x 2 breakout. Corresponding significance test results are provided in Table A10 (online).

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[5] The subject-to-variable ratio of around 5:1 is less than ideal. Derived components are reasonably interpretable, nonetheless. As our aims are more descriptive than inferential, we cautiously advance the obtained structure here.

[6] Oblique rotation (allowing factors to correlate) yielded similar results; max r between factors = .19 ($\Delta = 0$).

[7] As shown in Table A9, the latter competency crossloads this component (.49) and Factor 4 (.46). Neither loading is particularly definitive. We group it with statistics and research methods in organizing later results, given the stronger .49 loading and the relevance of this competency to measurement methods.

Table 7
*SIOP Competency Focus (*N = *130)*

PCA factor/Competency	Mean	*SD*	Skew	Median	Min	Max
Industrial Psychology						
Job/task analysis & classification	1.87	1.03	-.48*	2	0	3
Performance appraisal & feedback	2.19	.83	-.55*	2	0	3
Personnel recr't, selection, & placement	2.39	.91	-1.37**	3	0	3
Criterion theory & development	1.76	.97	-.43*	2	0	3
Training: theory, program design, & eval'n	2.17	.88	-.83**	2	0	3
Work motivation	2.20	.75	-.57**	2	0	3
Organizational Psychology						
Consulting & business skills	1.70	1.08	-.20	2	0	3
Organization development	1.69	1.06	-.05	2	0	3
Leadership & management	2.21	.86	-.79**	2	0	3
Ethical, legal & prof. contexts of I-O psych.	2.07	.86	-.59**	2	0	3
Organization theory	1.66	1.05	.00	1	0	3
Career development	1.06	.93	.52*	1	0	3
Methods						
Statistical methods/data analysis	2.68	.55	-1.62**	3	1	3
Research methods	2.67	.56	-1.53**	3	1	3
Attitude theory, measurement, & change	1.93	.86	-.38	2	0	3
Individuals/Teams						
Individual differences	1.95	.83	-.48*	2	0	3
Individual assessment	1.51	1.04	.05	1	0	3
Small group theory & team processes	2.04	.86	-.52*	2	0	3
General Psychology						
History & systems of psychology	.76	.76	.98**	1	0	3
Health & stress in organizations	1.32	.88	.28	1	0	3
Fields of psychology	1.03	.82	.46*	1	0	3
Applied Cognitive						
Judgment & decision making	1.21	.83	.50*	1	0	3
Human performance/human factors	1.02	1.01	.60**	1	0	3
Job evaluation & compensation	1.06	1.02	.57**	1	0	3
Excluded from PCA						
Consumer behavior	.23	.52	2.62**	0	0	3

0 = *completely ignores*, 1 = *focuses somewhat,* 2 = *focuses moderately*, 3 = *focuses strongly*
Excluding non-US. *$p < .05$, **$p < .01$, two-tailed

Results in Table 7 reveal statistical Methods/Data Analysis and Research Methods to be the two most targeted competencies averaging across all programs (mean = 2.7 in each case). These are followed by personnel recruitment/selection/placement (2.4) and a mixed bag of core I and O topics (e.g., leadership/management, work motivation, performance appraisal; range = 1.7 to 2.2). Individual Assessment marks the halfway point on the 0-to-3 scale (mean = 1.5), and general topics (e.g., fields of psychology, history & systems) occupy lower ranks. Job evaluation & compensation ranks 20th (mean = 1.1), human performance/human factors ranks 23rd (mean = 1.0) and the mean for consumer behavior is very low (.2).

Table 8

SIOP Competency Focus in Master's and Doctoral Programs in Psychology Departments.

	Master's programs ($N = 56$)						Doctoral programs ($N = 41$)					
PCA Factor/Competency	Mean	*SD*	Skew	Median	Min	Max[a]	Mean	*SD*	Skew	Median	Min	Max[a]
Industrial Psychology												
Job/task analysis & classification	2.30	.83	-1.02**	3	0	3	1.61	.97	-.15	2	0	3
Performance appraisal & feedback	2.45	.73	-.98**	3	1	3	1.93	.85	-.11	2	0	3
Personnel recr't, selection, & placement	2.67	.61	-1.70**	3	1	3	2.24	.99	-1.16**	3	0	3
Criterion theory & development	1.87	.90	-.36	2	0	3	1.88	.93	-.54	2	0	3
Training: theory, program design, & eval'n	2.48	.69	-1.34**	3	0	3	1.86	.82	-.29	2	0	3
Work motivation	2.22	.73	-.37	2	1	3	2.10	.73	-.57	2	0	3
Organizational Psychology												
Consulting & business skills	1.89	.87	-.29	2	0	3	1.65	1.06	-.02	2	0	3
Organization development	1.95	.98	-.25	2	0	3	1.22	1.06	.46	1	0	3
Leadership & management	2.14	.86	-.64	2	0	3	1.93	.88	-.55	2	0	3
Ethical, legal & prof. contexts of I-O psych.	2.25	.74	-.45	2	1	3	2.05	.77	-.43	2	0	3
Organization theory	1.59	1.09	.02	1	0	3	1.34	.99	.55	1	0	3
Career development	1.16	.99	.37	1	0	3	.85	.79	.59	1	0	3
Methods												
Statistical methods/data analysis	2.65	.54	-1.34**	3	1	3	2.73	.55	-1.99**	3	1	3
Research methods	2.61	.62	-1.36**	3	1	3	2.73	.45	-1.09**	3	2	3
Attitude theory, measurement, & change	1.77	.91	-.25	2	0	3	1.90	.74	-.24	2	0	3
Individuals/Teams												
Individual differences	1.93	.85	-.60	2	0	3	1.93	.91	-.49	2	0	3
Individual assessment	1.60	1.04	-.12	2	0	3	1.37	1.09	.30	1	0	3
Small group theory & team processes	1.86	.88	-.37	2	0	3	2.00	.84	-.54	2	0	3
General Psychology												
History & systems of psychology	.69	.68	.85**	1	0	3	.95	.77	.79*	1	0	3
Health & stress in organizations	1.29	.85	.32	1	0	3	1.49	.98	.04	1	0	3
Fields of psychology	.93	.76	.64	1	0	3	1.22	.88	.24	1	0	3

Table 8

PCA Factor/Competency	Master's programs (*N* = 56) Mean	*SD*	Skew	Median	Min	Max[a]	Doctoral programs (*N* = 41) Mean	*SD*	Skew	Median	Min	Max[a]
Applied Cognitive												
Judgment & decision making	1.08	.76	.37	1	0	3	1.10	.86	.30	1	0	3
Human performance/human factors	1.07	1.02	.48	1	0	3	.80	.84	.66	1	0	3
Job evaluation & compensation	1.13	.97	.47	1	0	3	.64	.83	1.34**	0	0	3
Excluded from PCA												
Consumer behavior	.29	.59	2.51**	0	0	3	.15	.36	2.08**	0	0	1

0 = completely ignores, 1 = focuses somewhat, 2 = focuses moderately, 3 = focuses strongly
Excluding non-US and online only. *p < .05, **p < .01, two-tailed

Table 9

SIOP Competency Focus in Masters and Doctoral Programs in Psychology Departments.

PCA Factor/Competency	Master's programs (*N* = 6) Mean	*SD*	Skew	Median	Min	Max[a]	Doctoral programs (*N* = 12) Mean	*SD*	Skew	Median	Min	Max[a]
Industrial Psychology												
Job/task analysis & classification	2.15	.76	-.21	2	1	3	.98	1.03	.61	1	0	3
Performance appraisal & feedback	2.70	.47	-1.05	3	2	3	1.78	.98	-.24	2	0	3
Personnel recr't, selection, & placement	2.74	.43	-1.36	3	2	3	1.78	1.07	-.06	2	0	3
Criterion theory & development	1.46	.81	-1.50	2	0	2	1.37	.97	-.29	2	0	3
Training: theory, program design, & eval'n	2.19	.75	-.43	2	1	3	1.27	1.15	.26	1	0	3
Work motivation	2.00	.89	.00	2	1	3	2.35	.77	-.80	3	1	3
Organizational Psychology												
Consulting & business skills	2.17	1.33	-1.21	3	0	3	.17	.39	2.06**	0	0	1
Organization development	2.67	.82	-2.45*	3	1	3	.86	.58	-.46	1	0	2
Leadership & management	3.00	.00	.00	3	3	3	2.60	.65	-1.59*	3	1	3
Ethical, legal & prof. contexts of I-O psych.	2.35	.81	-.97	3	1	3	1.25	.97	.14	1	0	3
Organization theory	2.50	.55	.00	3	2	3	1.80	.94	-.30	2	0	3
Career development	1.18	.98	1.40	1	0	3	1.02	.74	-.08	1	0	2

Table 9 (continued)

	Master's programs (N = 6)						Doctoral programs (N = 12)					
PCA Factor/Competency	Mean	*SD*	Skew	Median	Min	Max[a]	Mean	*SD*	Skew	Median	Min	Max[a]
Methods												
Statistical methods/data analysis	2.45	.51	.17	2	2	3	2.98	.09	-3.46**	3	3	3
Research methods	1.95	.83	-.07	2	1	3	2.97	.09	-3.46**	3	3	3
Attitude theory, measurement, & change	1.98	.90	.08	2	1	3	2.15	.72	-.19	2	1	3
Individuals/Teams												
Individual differences	1.67	.82	.86	2	1	3	1.82	.57	.00	2	1	3
Individual assessment	1.50	1.05	.00	2	0	3	.84	.69	-.04	1	0	2
Small group theory & team processes	2.50	.84	-1.54	3	1	3	2.50	.52	.00	3	2	3
General Psychology												
History & systems of psychology	.46	.51	.10	0	0	1	.40	.50	.43	0	0	1
Health & stress in organizations	1.33	.82	-.86	2	0	2	.89	.75	.02	1	0	2
Fields of psychology	1.00	.63	.00	1	0	2	.67	.89	1.73*	1	0	3
Applied Cognitive												
Judgment & decision making	2.20	.94	-.44	3	1	3	1.28	.61	2.51**	1	1	3
Human performance/human factors	1.50	1.05	.00	2	0	3	.50	.91	2.19**	0	0	3
Job evaluation & compensation	2.01	.88	.02	2	1	3	1.01	1.04	.54	1	0	3
Excluded from PCA												
Consumer behavior	.37	.49	.82	0	0	1	.00	.00	.00	0	0	0

0 = completely ignores, 1 = focuses somewhat, 2 = focuses moderately, 3 = focuses strongly

Excluding non-US and online only. *p < .05, **p < .01, two-tailed

Results in Tables 8, 9, and A10 reveal several trends distinguishing program types on competency focus. Mean competency scores are plotted for the 2 x 2 breakout in Figure A2 (online) and competency factor scores in Figure A3 (online). Results show that (a) both I and O competencies tend to be rated higher in focus by master's programs, especially in business-management departments; whereas (b) methods competencies tend to be rated higher by doctoral programs, also especially in business-management departments; (c) general psychology competencies, not surprisingly, are a stronger focus in psychology departments, especially at the doctoral level; (d) applied cognition competencies (e.g., judgment & decision making) are a stronger focus both in business-management departments and in master's programs (additively); and (e) there are no meaningful differences across program types on individuals/teams competency focus.

Relationships Between Frequency of Course Offerings and Competency Focus

I-O courses and competencies target similar content, sharing similar labels. It should not be surprising that programs offering performance appraisal courses, for example, report focusing especially on competence in performance appraisal & feedback. Beyond expecting such linkages, we also sought to discover more subtle themes regarding how programs are identified in terms of courses and competencies. Table A11 reports correlations between course frequencies and competency factors.[8] Also in Table A11 are point-biserial correlations with both the master's/doctoral and psychology/ business-management main effects. These are redundant with earlier ANOVA results but offer helpful insights here regarding patterns of course-competency linkages. A number of points bear noting.

First, not surprisingly, the I psychology competency component (Factor 1) correlates moderately positively with all the I-related course frequencies. With some exceptions (discussed below), the O psychology competency component (Factor 2) correlates meaningfully with key O-related courses; and the same holds, for the most part, for the methods competency component (Factor 3) and methods courses. We did not organize courses into clusters corresponding to the last three competency factors, but correlations are generally supportive here as well (e.g., frequency of job evaluation/compensation courses correlates .30 with the applied cognition competency component; frequency of work stress courses correlates .25 with the general psychology/health component). These findings generally support earlier interpretations. Other results in Table A11 offer more unique insights.

For one, despite being classified as O-related courses, both work motivation and work attitudes yielded very weak (*ns*) correlations with O psychology competency focus, correlating instead with I psychology focus. It may be that

[8] Fully articulated correlations between specific courses and competencies are provided in Tables A12 and A13. Due to space constraints, we limit discussion here to results based on just the competency factors. Correlations among all specific course and competency variables are reported in Tables A23 to A26.

programs seeking to offer a balance of specialized I and O courses offer motivation and attitudes (over other O-related topics) because they share with the core I topics a focus on individual-level psychological concepts. Moving down the first two columns, we note negative correlations between each of consulting/business skills and workforce diversity, on the one hand, and I psychology competency focus (Factor 1), on the other, and positive relations with O psychology focus (Factor 2). Notably, the O psychology factor is loaded highest by consulting & business skills, suggesting a practice-based understanding of Factor 2. This is supported by negative relations between Factor 2 and the frequency of several methods course offerings (e.g., r = -.27 with regression) and by r_{pb} = -.33 with the master's/doctoral distinction (see bottom of Table A11). Factor 2, thus, may especially capture the "art" of I-O psychology practice.[9]

Moving to the right of Table A11, we see a string of positive relations between the general psychology/health competency component (Factor 5) and common methods course offerings (e.g., r = .28 with ANOVA). Given that such competencies are rated higher in psychology departments (note r_{pb} = .34 with Factor 5), we attribute the noted correlations to key methods courses being offered more often in psychology departments (see Tables 5, 6, and A5). Similarly, psychometrics course offerings correlate weakly with the methods competency component (Factor 3) but positively with the general psychology/health component (Factor 5). This may be due to psychometrics courses being offered more frequently in psychology departments, where general psychology courses are also more prevalent. That psychometrics is not linked more strongly to methods competency focus suggests the methodological nature of this course may be taken for granted. In addition, methods competency focus is identified more uniquely by offerings in other methodological domains (e.g., multivariate analysis).

"Top-10" Program Norms

Full norms for the three top-10 sets of programs (Gibby et al.'s doctoral, K&A's doctoral, and K&A's master's) are provided in Tables A14 to A22 (online) along with means (on appropriate variables) for relevant comparison groups and significance test results. Here, we summarize differences involving frequency of course offerings and competency focus. There are relatively few differences.

The Gibby et al. top-10 set (N = 9) yields no significant difference (p < .05, two-tailed) from other psychology doctoral programs (N = 32) on course frequency and competency focus.[10] The K&A top-10 doctoral programs (N = 5 psychology doctoral[11]) differ from peer programs (N = 36) in the frequency of

[9] This does not diminish the importance of theory, of course: Note prominent associations with organizational theory and leadership/management in both Tables A9 and A11.

[10] One difference emerges at p < .10, two-tailed (i.e., qualitative/mixed methods courses are offered less frequently: 5-year mean = 0 vs. .4); but directionality permitting evaluation as p < .05, one-tailed, is not clearly justified.

[11] As per earlier articles in the series, additional KA top-10 PhD programs in "other" departments are excluded to avoid possible confounds in comparisons with peer programs. One KA top-10 MA program is excluded for the same reason.

offering courses on organizational theory (5-year mean = 0 vs. .9), work/family (1.2 vs. .3), basic research methods (5.0 vs. 3.6), and regression (5.0 vs. 4.2); and emphasis on competencies in career development (mean = .2 vs. .9), consumer behavior (0 vs. .2), and organizational theory (1.0 vs. 1.4). The K&A top-10 master's programs (N = 8 psychology Masters) show more prominent differences. Specifically, compared to peer programs (N = 46), they offer several I and O courses more frequently, including job analysis (5-year mean = 3.0 vs. 1.3), performance appraisal (4.4 vs. 2.7), personnel recruitment/selection/placement (4.8 vs. 2.9), work motivation (4.5 vs. 2.5), and work attitudes (3.6 vs. 1.5). Aggregating within categories, I-oriented courses are offered 1.6 times as often compared to peer programs, and O-oriented courses, 1.9 times as often. The ratio for all substantive courses combined is 1.5:1 (per year average = 10.5 vs. 7.0). No meaningful differences emerge in the frequency of methods course offerings or in competency focus. All told, comparisons involving the three top-10 program sets suggest that (a) the K&A top-10 master's programs tend to offer more I and O specialized courses relative to peer programs, and (b) the K&A top-10 doctoral programs tend to offer more courses in some domains and fewer in others.

Summary and Conclusions

There is a lot to digest from all the tables offered in this section, both in print and online. Here, we highlight just a few main trends. It is important to note that findings necessarily apply to the aggregate level. Exceptions to any trend are possible and we do not intend to paint all programs in a given category with the same broad brush. Findings are informative, nonetheless, at a general level.

First, psychology programs tend to offer more I and, to a lesser extent, more O content courses than do business-management programs. This holds with respect to both broad survey-type courses and more specialized offerings. An exception is organizational theory, especially relevant to business and management. Other courses (e.g., leadership/management) are offered in more balanced proportions. Business/management master's programs offer select O-related courses (e.g., organizational development) with notable frequency. Correspondingly, business-management doctoral programs report especially low frequencies of course offerings in both I and O domains (except organizational theory). Thus, students seeking balanced exposure to I and O content are more likely to find it in psychology-based programs. Those seeking a mostly O-related, "art-of-practice" focus might look to business/management master's programs.

A second trend is that methods courses and competencies tend to be definitive of psychology-based programs (both degrees) and business/management doctoral programs. Weaker methodological focus in business/management master's programs may reflect a more applied orientation. Students seeking basic or advanced grounding in I-O methods are less likely to find it in business-management master's programs. Those seeking advanced methodological training should consider doctoral programs in either department type, with business-management programs demanding more of students on some specialized topics.

Third, programs within broad types vary considerably in the courses they offer and require students to take in completing their degrees. Master's programs are more likely to require select courses than are doctoral programs, probably owing to tighter timelines. This suggests that master's programs may be more strongly defined by the courses they offer than are doctoral programs. The difference is akin to master's applicants choosing a particular type of restaurant (Italian, Indian, Mexican) with menu options limited to a single ethnicity versus doctoral applicants choosing from among different international smorgasbord venues, each offering similarly diverse, "all-you-can-eat" menus. This suggests that master's applicants have more to gain in maximizing fit with their chosen program by careful review of course offerings and requirements. Doctoral applicants should also seek a good fit, of course, but are afforded greater choice in courses over a longer graduate school timeline.

Fourth, the competency focus ratings largely mirror program comparisons based on course frequencies and requirement levels. Although showing some interesting twists, the first three competency factors permit interpretation as mostly I-, O-, and methods-related dimensions, the three domains most clearly definitive of I-O psychology. Drawing those components first shows their prominence as sources of variance among program identities. The latter three components permit more novel distinctions. The General Psychology/Health factor tends to mark psychology-based programs, and Applied Cognition, business-management-based programs; but, as orthogonal dimensions, each cuts across both department types to some extent. That the Individuals/Teams factor does not distinguish among program types suggests students seeking knowledge in related areas should not be constrained with respect to degree level and department type. How well the six-factor competency structure might further understanding of individual programs and the field of I-O psychology more broadly is a matter for ongoing consideration as survey results continue to be disseminated and discussed.

In the next issue of *TIP*, we turn our attention to survey results bearing on internships. In the meantime, we hope the curriculum and competency data offer grounds for fruitful discussion of the nature and scope of graduate education in I-O psychology.

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Is the Landscape of I-O Consulting Changing?

Lynda Zugec
The Workforce Consultants

If you haven't gone online as a consultant, you may just want to…

According to a Global Business Survey conducted by virtual marketplace Elance.com, the amount of consulting done online is steadily increasing. Although technology jobs continue to surge in the online world, the single-largest percent increase is expected to be in the service industries.

Elance.com, an online marketplace that links consultants to clients and their organizations, surveyed over 1,500 businesses that are currently hiring around the world through Elance. The survey suggests that the demand for online legal services was up 176% over the last year, with accounting experiencing an increase of 88%. Will that mean a corresponding change for how I-O consulting services are provided now and in the future?

Changes in Online Consulting

According to the survey, 1 in 4 university students will work online in 2013. Participation from this demographic experienced an increase in the past year from 26% to 47%

- Given that healthcare is a concern for consultants, if the Affordable Health Care Act comes into effect, more U.S. workers may consider independent online consulting work
- The number of full-time employees who will quit and turn to consulting is anticipated to triple in 2013
- The business world is experiencing a growing trend to hire "on demand"
- Companies of all sizes will hire twice as many online workers in 2013

Business Perspective

When businesses were asked what percentage of their workforce they think will consist of online workers in 5 years, 31% said they anticipate that more than 75% will be online consultants. A full 40% of these feel that the quality of talent online is of "better quality" than the talent they can find locally. Moreover, 85% believe that online hiring offers a competitive advantage with cost savings, faster time to hire, access to top talent, and better delivery. It is anticipated that companies of all sizes will increasingly realize such benefits and in turn hire more and more virtual teams as an extension of their onsite staff.

Consultant Perspective

When Elance consultants were asked to consider the most important aspects of online consulting, they included the ability to:

- Be my own boss
- Follow my passion
- Work from anywhere
- Control my schedule
- Have more choice over the projects I am involved in
- Work without an office dress code
- Work without cubicles

In terms of uncertainty in the global economy, online consultants don't seem to be overly concerned. When asked how the uncertainty in the global economy influenced the number of online projects they were hired for, 42% responded that they experienced an INCREASE in workload, with 18% indicating a "strong increase," 24% a "slight increase," and 41% indicating "no change." Of all respondents, 11% reported a "slight decrease" and 6% a "strong decrease."

Although such figures and self-report surveys may not have undergone the statistical rigor we have come to expect, they do pinpoint opportunities that may be fruitful to explore and suggest one way I-O consulting may be changing in the very near future.

Source:
Elance Global Business Survey
https://www.elance.com/q/global-business-survey

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Things I Learned Along the Way

Paul M. Muchinsky*
University of North Carolina at Greensboro

Alright children, gather 'round, gather 'round. In celebration of the 40th year of Uncle Paul's illustrious career, I will share with you some timeless pearls of wisdom accumulated over the past 4 decades. Be you an academic or a practitioner, be you I or O, be you a researcher or a meta-analyst, adhering to these nuggets of truth will make your life better. These verities are not simply mine. Any seasoned veteran of SIOP will attest to their sagacity. What separates my telling them to you versus everyone else is the bard of SIOP has animated each with a memorable anecdote. Each and every event occurred in my career. So listen up and pay attention.

1. Always carefully proofread your work

Early in my career I had a wonderful secretary, Marti. This was before the era of word processors and spellcheck. I would always give her material to type I had written longhand. Although I thought my handwriting was legible, occasionally Marti would come across a word she couldn't read. Rather than leave a blank space or type the word incorrectly, she would correctly type the word she thought I wrote. When I proofread, I developed the bad habit of just looking for typos not wrong words.

I had gotten a RFP from the U.S. Department of Education that appealed to me. They were soliciting short proposals for small grants. I had some nifty idea about behavior modeling I thought was worthy of funding. A key part of the grant proposal was where you had to specify the population that would benefit from the research. I said the findings from my proposed research "would be important for elementary school children." The grant was submitted, and it was not approved. Weeks after I received the rejection letter I happened to reread my proposal. I discovered why, in all likelihood, my proposal was not funded. Marti had typed my proposed research "would be important for eliminating school children." I guess overcrowding in schools was not a big problem in the late 1970s.

2. Sometimes right is still wrong

This story occurred when I was a graduate student at Purdue. I was the TA for a graduate stat course. The professor had me create homework problem sets for the students based upon the lecture content. This particular week the professor was teaching some statistical concept that began with the letter B. It was

* Fan mail may be sent to pmmuchin@uncg.edu.

either binomial or Bernoulli, I can no longer remember which. The particular homework problem I created involved computing the probability of heads and tails in a coin flip after a certain number of trials with given results. The class as a group had a difficult time with the problem. One student computed the probability of heads to be .64 and tails to be .51. I told the professor about the overall poor performance on the question and this one student's answer in particular.

The professor takes this person's homework and writes in bold letters, "The probability of heads plus the probability of tails must equal 1.00!!" (Please note the double exclamation point.) The professor then tells me to give another question like this one in the next homework problem set. I do so. The class as a whole did much better the second time, but my favorite student submits this answer:

"The probability of heads is 1.50 and the probability of tails is -.50. The probability of heads plus the probability of tails equals 1.00, correct per the instructions of the professor!!" And positioned next to her calculations was a BIG checkmark just to further telegraph to me that she got it right this time. I didn't have the nerve to bring this particular student's homework paper to the attention of the professor a second time.

3. Don't use big fancy words that sound similar to another word with very different meaning

I had a client who was having trouble with a senior manager. The guy was a technical wizard but he was terrible in interpersonal relations. In particular, he didn't seem to handle one-on-one meetings very well at all. My job was to interview his direct reports and then propose some skill training for him. I had interviewed several people who said the guy was especially quick to criticize his subordinates. So I am talking to this one employee and the following exchange occurred.

Me: "I have been hearing from other employees that [the manager] is quick to castigate his subordinates. Is that your experience as well?"

Employee: "He's tough alright, but no, he won't cut your balls off."

Me: "Duly noted."

4. Just having a graduate degree doesn't make you better than others

I was collecting work analysis data from employees in a book printing company. I was interviewing operators who ran large printing machines. Each machine performed a different function in the process of printing books. Few of the operators had a high school diploma, as the jobs were very simple. Basically each operator had to load thousands of sheets of paper in one end of the machine and then unload the sheets at the other end of the machine. It seemed like truly mindless work. Many of the employees I spoke with used the word "sucker." The expressions were like, "that sucker was running hot," or "those suckers were really moving," or "I hate it when that sucker jams." It was very warm in the room and my brain had started to fry from the heat and the tedium of work analysis. So I'm in the middle of my final interview of the day,

and I decide to speak the language of the locals, just for a change of pace. This particular worker ran a slicing machine that trimmed and squared the pages before they were bound. I forget my exact wording, but I asked a question like, "So, how do you load that sucker?" The employee's face went blank, and then I was dutifully (but politely) informed, "There are no suckers on my machine." It was only then I cleverly deduced a "sucker" was not a generic slang term, but referred to a small rubber suction (like the rubber tip on the end of a child's arrow) that descends on a piece of paper, lifts it (through suction), and enters it into a slot whereupon print is applied to it. This being a page trimming machine, no suckers were utilized. I was ashamed at my haughtiness, assuming these uneducated workers were merely filling my ears with local vernacular. I felt foolish for being such a sucker to my own hubris.

5. Don't take any guff from students

Every now and then we get a student who whines about the tests we give. I once had an Olympic champion in whining who was in my class on test development. Not only did she whine about my tests, she probably medaled in stupidity as well. Following a test she said to me, "You are always talking about valid tests. How do you know the tests you give are valid?" I replied, "I know they are valid because the scores on the test are highly correlated with the grades I assign." She was too dense to figure out the delightful absurdity of my statement.

6. Even editors make mistakes

This occurred in the 1980s. At the time I was doing research on vocational choice. I was a member of the editorial review board of a leading journal on the topic. I would receive one or two manuscripts per month to review. I had just finished a lengthy study on the topic and mailed the manuscript off to the journal. This was long before the era of electronic submission of manuscripts. About 2 weeks later I go to my mailbox and find an envelope from the journal containing a manuscript to review. I let it sit on my desk for about a week before I opened it. I discovered the manuscript was on the same topic as the paper I had just submitted myself. It took me an honest 10–15 seconds of reading it before I realized this was the very manuscript that I had submitted to the journal about 3 weeks previously. I was licking my chops with delight as I wrote the following terse review of the manuscript to the editor: "This is the finest manuscript ever written in the history of the planet Earth. I should know. I wrote it." The editor wrote back and said while my expertise on the topic was unquestioned, just to be safe an evaluation of the manuscript by another reviewer would be sought. I still can't figure out why I didn't immediately recognize the manuscript as my own, but I didn't. The manuscript was eventually accepted but not without some totally unnecessary revisions. Why improve upon perfection?

7. When using words with multiple meanings, be sure people understand the particular meaning you intend

I was teaching a class on research methods. I described how sometimes psychologists use confederates as part of the research design. I can't remember the particular study I described (it might have been the famous Asch study on conformity), but I asked the class to critique the research regarding the limits of generalizability. One budding scholar said the findings from the study had limited generalizability because there were no Yankees in the study, just Confederates. Because I went to Gettysburg College for my undergraduate work, maybe he was just playing to me.

8. Don't trust acronyms

I had a client that hired me every 3 years to conduct an employee opinion survey. My contact person was head of HR. To get the project approved, I had to appear before the top VPs and CEO to address their concerns about the survey before it was administered. I was assured the meeting would be a brief courtesy call. It was anything but. It seemed like every VP was a closet psychologist, with the VP of Finance in particular grilling me on almost every question. What I was told would last about 20 minutes wound up taking about an hour and a half. At the end of the meeting I felt I had just gone 15 rounds with Rocky Marciano.

I was told on another day I had to meet with the "EAC," the Employee Advisory Committee. The EAC was a recently created committee designed to facilitate communication from the top tiers of the organization to the lower ranks. Unlike my meeting with the executives, this time I took nothing for granted. I prepared slides, explanatory handouts, and mock results to show how the findings would be presented. I was as prepared as I could be. The meeting with the EAC lasted about 10 minutes. The EAC had no questions for me at all, as the members simply assumed I knew what I was doing. I wasted about 8 hours preparing for this affair. I then administered the survey without incident.

Another 3 years go by, and it's time for another survey. In the intervening years this company merged with another, and there was even more upper-level bureaucracy. I was told over the phone I would again meet with the EAC. I wasn't going to be fooled a second time about this cream puff committee. I show up at the head of HR's office and quickly deduce he is highly agitated. I asked him what was bothering him. He said he found meetings with the EAC to be very stressful since the merger. And because this was the first time the opinion survey was being given following the merger, he wanted it to go well. I simply couldn't understand the basis of his concern, as the other time I met with the EAC, they were about as placid a group as one could find. We get in the elevator and pushed the button for the top floor. He continues to fret. Finally, I said, "We're meeting with the EAC, the Employee Advisory Committee, right?" His eyes open wide and says, "Hell no, we abolished that useless committee about 3 years ago." The elevator dings and the doors open. "We're meeting with the EAC: the Executive Administrative Council, the new name for all the top brass

following the merger." My mouth went instantly dry as I spied my favorite VP of Finance (now Executive Vice President of Finance) as he entered the conference room where we were meeting. Without so much as notes, somehow I schmoozed my way through the meeting. I never trusted an acronym again.

9. Stereotypes are often inaccurate assumptions about behavior

I made a reservation to rent a car at the Miami International Airport. I approached the rental car counter. The agent on duty is an attractive young lady. I will not mention the color of her hair. The conversation between us went like this:

Agent: "Do you have a reservation?"
Me: "Yes, I do. My name is Muchinsky."
Agent: "What?"
Me: "Muchinsky."
Agent: "What?"
Me: "Muchinsky."
Agent: "What?"
Me: "It's like three words, Much-In-Sky, but it's pronounced Mew-Chin-Ski."
Agent: "Much-In-Sky! Are you Indian?!"
Me: "Lady, if it helps me get my car, yes, I am an Indian."
Agent: "What tribe?"

Upon telling this story to my students, I acquired the nickname "Chief Much-In-Sky." Stereotypes are often inaccurate assumptions about behavior. But not always.

10. What goes around comes around

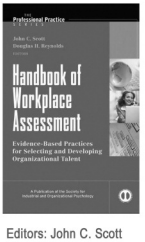
This occurred when I was in graduate school. I was the TA for Dr. Joseph Tiffin, who was in the final year of his distinguished career at Purdue. Dr. Tiffin taught a seminar for incoming graduate students in industrial psychology. The class consisted of reading assigned journal articles, and the students responding to a question posed by Dr. Tiffin about each article. Dr. Tiffin had taught the class the same way for many years and did not change the assigned readings nor the questions he asked about each article. Previous cohorts of graduate students had recorded the questions asked and also wrote the answers Dr. Tiffin wanted to hear. So, in effect, every incoming class of students was given the blueprint of how to conduct themselves in class from previous students.

By this stage in his career Dr. Tiffin had a very truncated style of speaking. He barely opened his mouth when he spoke and sort of grunted out his words. I don't think you could have fit a potato chip in between his lips when he was speaking. But because the students knew what questions he was going to ask in advance, we really didn't need to understand what he was saying. Each student would answer his or her question, and then Dr. Tiffin would record his assessment of the student's answer.

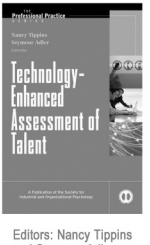
One of the students in my class was a lovely woman from India. Her name was Nina. She had a very heavy Indian accent that was sometimes difficult to follow. One day before class Nina says to me, "Paul, I must tell you. I know Dr. Tiffin is very bright, but I must tell you, Paul, I have not understood a single word he has said all semester!" Being Dr. Tiffin's TA, I assisted him by carrying his material to and from class. After class one day we are walking back to his office, and he says to me in his compressed speech, "Paul, I gotta tell you. You know this Nina? I know she is very bright, but I gotta tell you, Paul, I have not understood a single word she has said all semester!"

Well, there you have it. Over 40 years of life's lessons reduced to just a few moments of reading time. When you get to be old like me, share what you have learned along the way with others. It is more gratifying than isolating yourself and perturbating.

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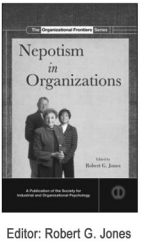
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YES YOU CAN!

I-Os and Funded Research

Ashley Walvoord
Verizon Wireless

Liu-Qin Yang
Portland State University

Greetings from **Yes You Can**, the column that is "all about the Benjamins" and how to find them for your I-O research interests! In this issue we continue profiling real-life funding examples and strategies from successful I-O peers. The focus of this issue is military grants and contracts, and back by popular demand, you will get a "behind the scenes" perspective from a colleague "on the inside"! Join us for the next 1,500 words and see just how many opportunities military funding may hold for your own research interests!

This quarter we partnered with **Dr. Eduardo Sala**s (University of Central Florida; UCF) and **Dr. Jay Goodwin** (Army Research Institute for the Behavioral and Social Sciences; ARI). Eduardo has an extensive history of winning research funding with the Department of Defense, and prior to joining UCF, Eduardo worked as senior research psychologist for the Naval Air Warfare Center's Training Systems Division. Jay is chief of Basic Research, a role in which he leads the development of the Army's research priorities and the awarding of funding to researchers. Both experts were eager to share their military funding expertise and experience with the *TIP* audience!

Let's cut to the chase and talk about "I-O in uniform". Does I-O really offer a good match for military research topics?

Eduardo (UCF): My answer is yes! I-Os are qualified to contribute to military research in numerous ways. The most obvious pairing is when military funding agencies have research priorities that overlap explicitly with I-O subject areas; some funding solicitations may focus more on I (e.g., selection testing), more on O (e.g., teams and organizational culture), or a combination of the two. A somewhat less obvious opportunity is when the funding solicitation focuses outside of I-O, and we can still bring expertise in measurement or program implementation to other military research topics. Remember that military entities are organizations too!

Jay (ARI): From the ARI perspective, many of our funding topics fit squarely in the domain of I-O psychology (selection, leadership development, and training account for a large proportion of our research priorities). Ironically, I review in excess of 100 proposals and white papers each year, and I don't see nearly as many proposals from I-O psychologists as I do from

other disciplines. If it is any motivation for *TIP* readers, we put millions of dollars out there every year to support research, and I am amazed that there aren't more I-O psychologists pursuing it. Consequently, the vast majority of that funding is going to individuals in other fields!

That does sound motivating! Let's talk about the form of those million dollar mechanisms. What is the difference between a military research grant versus a military contract?

Jay: Good question, they are very different. A contract is literally a procurement of a good or service. If you are issued a research contract, you are being paid to perform a very specific service. A grant is a form of assistance in which the government provides support to you to do the research as a public good. As of last year, ARI uses both contract and grant mechanisms.

Eduardo: In a contract, the military is buying a specific deliverable from you (e.g., a program, a simulation, a tool, a literature review of team dynamics), so you don't have the flexibility to change things or move money around without approval. A grant is more flexible, where you propose the research that you want to conduct, the agency gives you the money saying "let's see what happens when you carry this out." With the grant, your research may unfold in some different directions, and money is typically more flexible to move around.

Imagining our research interests in a military context could be a challenge for some I-Os. Could you share some ideas to help readers identify the military research opportunities that offer alignment with their I-O research interests?

Eduardo: First, I subscribe to discussion lists and websites using keywords for my research interests, and then every couple of weeks I receive potential funding solicitations matches. I try to read those solicitations while remembering everything that an I-O potentially brings to the table. I encourage *TIP* readers not to stop at the first paragraph of a solicitation and conclude that there aren't relevant opportunities out there—don't create a self-fulfilling prophecy! The funding topic can be broad, such as "human performance." What is that? It could be anything. Read on and do some digging and you will often find opportunities for numerous research topics!

For example, if a solicitation focuses on human performance in a hostile environment, that doesn't necessarily link to my personal interest in teams or training. However, I read the solicitation anyway, and then I call a contact at the funding agency to learn more and decide if there is something that I can offer (e.g., is there a legitimate team or training component in the larger topic). If I don't feel that I am the best match to lead a proposal for that solicitation, but I am still interested, then I sometimes reach out to a colleague to share the solicitation and offer my support. I can contribute to the measurement of the project, or the methodology, or other aspects.

In general, networking is probably my most important strategy. I intentionally try to meet people from military agencies (e.g., program officers) at conferences, and then I maintain those relationships by touching base periodically. I might call up a contact to ask what research priorities are on the horizon, what do they see coming up in the next 3 to 5 years (anyone can pursue this type of interaction with program officers, it's not just a benefit for more experienced researchers).

Jay: I also think it is helpful to first understand that military research organizations are domain focused—they won't fund all research topics, only the ones related to their research mission. The Navy and Air Force have divisions within their overarching research labs (the Office of Naval Research and Air Force Research Laboratory, respectively) that focus on human science topics. The Army has a small number of research labs that focus on human science: The Army Research Institute for the Behavioral and Social Sciences, the Walter Reed Army Institute of Research, and the Army Research Laboratory's Human Resource Engineering Directorate are the main ones.

In contrast to the National Science Foundation (NSF) or National Institutes for Health (NIH), military laboratories generally are seeking higher-risk proposals than those agencies. We look for proposals that will stretch the boundaries of science. Another interesting difference is that NIH and NSF tend to use more external reviewers for evaluating research proposals, whereas at ARI we tend to use internal reviewers because we need to ensure the proposal moves the topic forward into applied research (approximately 2/3rds of my staff have an I-O background).

To learn about current areas of focus, you can identify researchers from the military labs who handle the research domains you are interested in and follow the topics they are presenting and publishing. To learn more about future directions, review current broad agency announcements that describe the interests of the agency, and then follow up with your questions to the research managers identified. The research managers will often invite you to send them a three to five page white paper with your idea. Taking the time to write the white paper is a good idea. It shows your dedication to the topic, and it will also result in feedback that helps you clarify your topic. Often this leads to an extended interaction where you can learn more about what they are specifically interested in.

Finally, I always recommend the website of the National Research Council's (NRC) Division for Behavioral, Cognitive, and Sensory Sciences and the section on Humans, Systems and Technologies for those who wish to learn more (there is also great information about other topics at that site).

Finally, do you have any advice as* TIP *readers begin to brainstorm about their research and opportunities for military research funding?

Eduardo: A very important lesson is to be responsive to the funding solicitation. Remember that your proposal is about making a difference for that agency. I invite readers to check out the new chapter "Writing Grant Proposals

for Military Agencies" (Salas & Shuffler, in press), which shares suggestions for familiarizing oneself with military agencies, assembling a team of researchers, the importance of submitting an initial white paper, networking, tips for proposal writing, help with understanding military language, and more!

Jay: Remember that ARI is looking for substantial scientific advancement and application. Most research is incremental to some extent, but there is a big difference between adding a condition or a variable to the conceptual model, which usually indicates a small incremental step, and synthesizing a new conceptual model drawing from several literatures and disciplines, which usually indicates a fairly large incremental step.

Lastly, don't be afraid to submit proposals for smaller amounts of funding. Often, the funding agency will end up with a smallish amount of funds left after selecting several proposals. Some agencies will then proceed down their list of proposals and identify good quality proposals that fit the smaller pool of funds remaining. In those cases it pays off to have a proposal that fits in those funding seams.

A Look Ahead to the Next "Yes You Can: I-Os and Funded Research"

Our sincere appreciation to Eduardo and Jay for a great introduction to military research funding! Remember, you can read the continued conversation from these interviews at www.siop.org/grants.aspx, in which Eduardo shares his tried-and-true tips for funding success, and Jay reveals the strategy behind ARI's prioritized research topics!

In the next column, our series continues with real-life examples from several of your I-O colleagues who have found success with foundation-based / niche grants, including **Donald Truxillo** from Portland State University! Still on the fence? Try visualizing your research interests as objectives of these funding agencies, and until next time, remember: **Yes You Can!**

Funding Resources

Salas, E., & Shuffler, M.L. (2012). Writing grant proposals for military agencies. In R. Sternberg (Ed.), *Building successful grant proposals from the top down and bottom up.* Los Angeles, CA: SAGE.

http://www.nationalacademies.org/nrc/ (Behavioral and Social Sciences > Humans, Systems, and Technologies)



Inception to Impact?

Stuart Carr
Massey University

Tena koutou Tatou/Valued Contributors to and Readers of Quo Vadis in *TIP*!

This is the final episode in **QV** as we know it because I am leaving the column in the next issue and handing over to some very capable and motivated good people to continue the charge. More will be announced by and in the journal soon. Watch this space! In the interim, for this final column, I invited past contributors to **QV** to sign off with any last-minute observations about the column, in particular with reflections about any impact it may have had, or been felt to have had. To accomplish that task we use the classic Kirkpatrick and Kirkpatrick (2006) structure for evaluation.

Today we are privileged to be joined by Professor **Dianna Stone** from the University of Texas at San Antonio and outgoing editor of the *Journal of Managerial Psychology*. **Alexander Gloss** joins us from the IOTech4D Lab at North Carolina State University, where he also plays a leading role in the Global Organization for Humanitarian Work Psychology. **John C. Scott** is chief operating officer of APT Metrics, Inc, and heads up SIOP's representation to the United Nations. Professor Malcolm (Mac) MacLachlan is with the Center for Global Health in Trinity College Dublin and is an editor of the volume *Humanitarian Work Psychology* (2012). **Donald M. Truxillo** is professor of Industrial/Organizational Psychology at Portland State University and Chairs the SIOP International White Paper Committee

Reactions: Did you like the column generally or any particular ones, any critical incident?

Truxillo: Yes. Taken together, the columns challenged I-O as a field about its mindset and to think about how we can serve a part of the world's population that may not be considered by us.

Gloss: I remember, quite fondly, our writing/jam session on the bus from Auckland to the North Shore after we met with representatives from Greenpeace, New Zealand. I felt truly privileged to be working on such an innovative and important project—and this was reflected in a resulting column for our discipline (Briggs-Hastie et al, 2010)!

MacLachlan: Yes, I thought it was good, bringing what was outside of I-O, a critical challenge, into the realm of I-O as a whole. The column also showed possibilities for people who are inside of I-O: a window on development challenges.

Learning: Do you feel it created any learning, either personal or general?

MacLachlan: Yes. Part of the learning is of the linkages between people working in apparently disparate areas, so you learn that the potential influence of I-O is more pervasive than one realized and less encapsulated in the for-profit sector.

Gloss: The column highlighted an important gap (or at least an underdeveloped area) in research within the discipline of I-O psychology, namely, an understanding of organizational behavior in nonprofit, prosocial, and/or campaigning organizations. While this observation was not necessarily new, hearing it from the viewpoint of the manager of a major nonprofit organization drove home the point in a compelling manner.

Truxillo: Yes, the columns informed us about ways in which I-Os could join forces to help support people in the world. It also suggests that we may be missing a context in which we can have a substantial impact—and greater visibility.

Behavior: Did you use any of them, the column contents, either your own interview contents or any others' insights across the column generally?

Gloss: The content of the interview has inspired an entire line of research projects that endeavor to investigate the unique characteristics of work within nonprofit organizations.

Stone: Based on the column, we realized that relatively little research in I-O psychology has focused on prosocial issues (Cascio & Aguinis, 2008). As a result, at least one major journal now emphasizes prosocial issues in many of its special issues.

MacLachlan: I referred students to the column on a periodic basis.

Results or impact: Did the column generally have any impact, either on your own teaching, practice and/or ideas, or those of others, in your view?

Truxillo: Yes, I've brought up a number of the points in my classes, both undergraduate and graduate.

Gloss: Absolutely, the content of the entire **Quo Vadis** column has not only inspired me but also many of my colleagues to become involved in I-O psychology and to apply I-O psychology to nonprofit organizations, to humanitarian and international development work, and to prosocial issues more generally.

Stone: I believe the column's emphasis on prosocial I-O psychology has greatly benefited the field of I-O psychology. Such writing was the impetus for changing the focus of our journal. For instance, we have recently published special issues on poverty reduction, workplace bullying and aggression, job loss, age diversity, and I-O psychology's contributions to society. It is clear that our field has a great deal of knowledge that can be applied to enhancing our understanding of social issues or changes in society. Thank you **QV** for helping us to develop such a significant focus. We know that the changes at *JMP* will make important and lasting contributions to our field.

Truxillo: Yes, it's added to my general evolution towards thinking that we can move beyond our standard mindset in how we help organizations and

workers, and consider the millions of nonindustrial workers that typically aren't even on our radar.

MacLachlan: I think the column enthused people who have been outside the realm of poverty reduction and international development. As an editor of the recent book on humanitarian work psychology (just nominated by the Red Cross/Crescent as its Book-of-the-Month), I can say that the book benefited greatly from the extracts out of **Quo Vadis** that were included in the contents.[1] They gave a more rounded impression of the realities of international development work, and brought some key stakeholders into the I-O-development nexus.

Scott: (Quoted directly from Scott, 2012): "Chapter 8: Quo Vadis Interviews in Practice—Demand; and Chapter 9: Quo Vadis Interviews in Practice—Supply…flesh out how I-O psychologists can apply their discipline to addressing significant humanitarian demands. [**Quo Vadis**, 2012a, b] accomplishes this task through a series of interviews with leading researchers and practitioners and has organized their responses into six categories, along a continuum from broad political to individual. The information contained in these two chapters is insightful, detailed and dovetails nicely with other chapters in the volume... The interviews contained within these chapters and the work reported in [them] provide a comprehensive collection of demands within the humanitarian sector that are accompanied by ideas for 'supplying' solutions to meet these demands. This work and these interviews should be continued and expanded to further flesh out areas where the skills and expertise of work psychologists can be applied. This will be essential for educating and engaging a new generation of I-O psychologists who represent the future of this specialty" (ibid, p. 34, parenthesis added).

Thank you everyone, it's been a wonderful journey. With John, Dianna, Mac, Donald, and Alex, I would like to close by saying a huge THANK YOU to the community of readers and editors and managers at *TIP*. A very special thank you goes to *TIP's* outgoing Editor **Lisa Steelman,** to former *TIP* Editor **Wendy Becker**, and of course to Jen Baker at SIOP, for being such wonderful colleagues, professional advisors, leaders, supervisors, and ultimately friends! Thank you to Dave Nershi, for your constant support, including SIOP's very kind and generous permission to reprint some of the columns in the landmark book of contributions that is *Humanitarian Work Psychology*. Thank you to the late Professor Emeritus Frank J. Landy, who had the original idea for the column and then inspiringly enabled it to grow into something real.

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[1] We are very grateful to SIOP for allowing this to happen

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Alex Alonso
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In late 2012 we learned that our trade publication, *The Industrial-Organizational Psychologist (TIP)*, was going to a strictly online format. This meant that eventually we would hit an issue (this issue, in fact) that would be the last in print. This transition to electronic-only formats—although common among numerous publications—is special for us I-Os because it marks the end of that special moment every quarter where you open your mailbox and find that plastic-wrapped bundle of I-O magic. For every columnist, the loss of this spurs moments of reflection. For instance, in my case (Alex) I harken back to a time when I received my first *TIP* in the mail while living in the sometimes foreign land we call "Miami." I also reminisce on the whirlwind events that led to the birth of the **International Practice Forum** starting with the dawn of the International Affairs Committee (IAC), followed by the linking of hundreds using the IAC wiki page, and extended by lessons learned across the globe in this very forum. For my co-columnist (Mo), this momentous change led to additional looking back to the time he had to manually fill out 20+ application packages to graduate school and mailed them from China to the U.S. (the postage cost him a fortune at that time for those heavy packets).

All the reminiscing got us to thinking—why not look back at the events that have led to a global I-O community, especially when there was no Internet? Specifically, we wondered when I-O went from being split camps of "work and occupational psychologists" or "industrial-organizational psychologists" or "psicologos laboral" to a worldwide community of work, industrial, and organizational psychologists. In fact, countless steps gave rise to the birth of the Alliance for Organizational Psychology in 2011. We recognized that to answer our central question, we needed a deeper historical perspective. We began by asking ourselves who had the best understanding of the historical global linking of I-O psychologists. Although there were many candidates, we were fortunate to have a team offering the best of both worlds in historical perspective and truly global accounts. In this column, **Milt Hakel** and C. J. de Wolff will provide a joint look at the events that have led to a burgeoning global I-O community.

Our contributors are an academician and a practitioner, both with extensive experience in linking communities of I-O psychologists. Milton D. Hakel (aka Milt) is the Ohio Board of Regents Eminent Scholar in Industrial and Organizational Psychology and professor emeritus at Bowling Green State University, in Bowling Green, Ohio. He received his PhD in Psychology in 1966 from the University of Minnesota, and served on the faculties at Minnesota, Ohio

State, and Houston before moving to BGSU in 1991. Dr. Hakel began his career with research on selection interviewing practices with support from the National Science Foundation. Research support has also come from the Navy, Air Force, Coast Guard, and Army, as well as the private sector. He is a former Fulbright-Hays Senior Research Scholar in Italy (1978) and completed 6 years as a member and 2 years as chair of the U.S. National Committee for the International Union of Psychological Science. He also served as a member of the Board of Directors of the International Association for Applied Psychology. Dr. Hakel currently serves as the president of the Alliance for Organizational Psychology. His major current interest is the role of formative assessment in learning and performance. He is a winner of the James McKeen Cattell Award for excellence in research design from SIOP. He served as SIOP's president in 1983–84. He is a fellow of SIOP, the Association for Psychological Science, and the American Association for the Advancement of Science.

Joining Milt as a contributor is Dr. Charles J. de Wolff (aka C. J.). Dr. de Wolff is a long-time contributor to the practice and study of work psychology. He has written or edited more than 150 published works including *The Handbook of Work Psychology* and *The Handbook of Work and Organizational Psychology.* His collective works have been published in *Personnel Psychology* and *the European Journal of Work and Organizational Psychology.* In addition to his published works, Dr. de Wolff has served on numerous taskforces and committees exploring the linking of lessons learned across various European work psychology communities. He is a recognized expert in the practice of work psychology and the translation of science into practice for organizational effectiveness.

Together, Milt and C. J. will be reviewing the genesis of globalization in work, industrial, and organizational psychology. They will take us down memory lane with the goal of highlighting a few moments where I-O psychology went from an amalgamation of numerous local and national communities of practice to an international community of researchers and practitioners. To use an analogy borrowed from the sports world, Milt and C. J. will relive the moments where I-O psychology went from a national sport to an Olympic sport.

Associating and Linking WIO Psychologists

Milt Hakel and C. J. de Wolff

The past 50 years witnessed the beginnings of global linking by work, industrial, and organizational psychologists. That, in our view, is the most important professional development occurring during the decades in which *TIP* has been printed. Now on the verge of *TIP* going "electronic," we want to recount a few of the key steps that brought us to this point.

IAAP

When *TIP* readers of our generation think of international perspectives on the field, we think first of the International Association of Applied Psycholo-

gy (IAAP). It was founded in 1920, and indeed there were many European developments in our field up to 1933, but that ceased entirely with World War II. It was not until the International Congress of Applied Psychology, held in Munich in 1978, that the Division of Work and Organizational Psychology was founded. Before that, there was no easy way for organizational psychologists to associate with each other at international congresses or to make contact with psychologists in other countries.

Informal Linkages

During that same era, individual and small group linkages were beginning to take form. In 1973, Rains Wallace became the editor of *Personnel Psychology*. As editor, he could invite articles, and knowing that most industrial psychologists in the U.S. knew little or nothing about practices in Europe, he invited one of us (C. J. de Wolff) to write a review. That seemed like a good idea but impossible for one person to do, given the reality of 20 countries and more than 20 languages. Some in Europe felt they knew more about developments in the U.S. than what was happening in neighboring countries. It was decided to convene a group to take on the task, funding was sought and received, and in 1974 the group met for the first time at Castricum, The Netherlands. Joining de Wolff were Sylvia Shimmin (UK), Maurice de Montmollin (France), Enzo Spaltro (Italy), Göran Ekvall (Sweden), Heinz-Ludwig Horney (Germany), Marian Dobrzyński (Poland), and the new editor of *Personnel Psychology* (i.e., Milt Hakel, replacing Wallace after his death). After several working meetings the group published the review in *Personnel Psychology* (de Wolff & Shimmin, 1976), and then it produced a monograph (de Wolff, Shimmin, & de Montmollin, 1980).

A 1975 working meeting in Columbus, Ohio was immediately followed by a joint meeting with members of the Summit Group, one of several informal discussion groups that were active at the time (Summit is still going, now in its 45th year). Coming from these meetings was the realization that there is so very much we need to learn from each other.

ENOP and EAWOP

The organization and norms of the Summit Group provided some precedent and inspiration for the 1980 founding of the European Network of Organizational Psychologists (ENOP), an informal discussion group that in 2011 included 23 professors of work and organizational psychology.

ENOP's success in turn contributed to the founding in 1991 of the European Association of Work and Organizational Psychology (EAWOP), now comprising 1,250 individual members combined with a federation of 24 national constituent societies. EAWOP facilitates research and practice in the field of work and organizational psychology through its biannual conference, journals, summer schools, small group meetings, and workshops.

The Alliance for Organizational Psychology

Most recently the Alliance for Organizational Psychology was founded as a way of linking WIO associations and their members. Founded by Division 1, EAWOP, and SIOP, the Alliance intends to become a global federation that supplements rather than duplicates the activities and services of its federated society members. The Alliance will have no dues for individuals, but rather individuals will be able to use its services and resources by virtue of their memberships in its federated societies. It will hold no congresses of its own, but rather it will try to bring international perspectives to the meetings of its federated societies. Both the SIOP Conference in Houston and the EAWOP Congress in Munster, Germany will feature program events originated in Alliance consultations.

To be sure, there have been many international collaborative efforts in the past 5 decades, for example, the GLOBE project (House et al., 2004) and the assessment center congresses, to name just two. We wrote about these particular events because they illustrate so well what can happen when associations and links get created, that is, when social networks begin to function. Now with Internet connectivity expanding so rapidly, it is exciting to imagine the future growth of our field and the availability of its knowledge and know-how to the entire world.

See You Next Time!

We leave you with this parting thought by Norman Cousins, acclaimed political journalist, author, and world peace advocate: "The old emphasis upon superficial differences that separate peoples must give way to education for citizenship in the human community." As Milt and C. J. detailed in their contribution, this "education" has been underway in the I-O community for more than 50 years. However, it is incumbent upon us as citizens of this community to ensure that this mutual education never ceases. Until next time goodbye, doe-doei, zaijian and adios!

WE NEED YOU AND YOUR INPUT! We are calling upon you, the global I-O community, to reach out and give us your thoughts on the next topic: environmental sustainability. Give us your insights from lessons learned in your practice. We are always looking from contributors and we will be on the lookout. To provide any feedback or insights, please reach us by email at the following addresses: mo.wang@warrington.ufl.edu and alexander.alonso@shrm.org.

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Lori Foster Thompson, Alexander E. Gloss, and M. K. Ward[1]
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Greetings *TIP* readers, and welcome to the April edition of the **Spotlight on Global I-O** column! This is a special issue of our column because it features I-O psychology in Papua New Guinea, compliments of our guest columnist Leo Marai. It is also a special issue because this is the last time the **Spotlight** column will appear in printed form. Increasingly, the practice of disseminating print media is becoming obsolete—a trend that evokes a wide range of reactions. In truth, however, this trend may effectively go unnoticed by many people in the world with historically limited access to current print journals and newsletters. Some have argued that a greater reliance on electronic forms of communication, and collaboration can promote greater participation in the field of I-O psychology by academics and practitioners in the "majority" world (Gloss, Godbout, & Glavey, 2010).[2] In effect, the movement toward posting journals and other academic content online has the potential to equalize access to knowledge about the science of work and thus facilitate knowledge sharing with our colleagues in resource-constrained regions of the world. With this consideration in mind, we now turn to Leo Marai and his profile of I-O psychology in Papua New Guinea.

Industrial and Organizational Psychology in Papua New Guinea



Leo Marai[3]
University of Papua New Guinea

Background of Papua New Guinea

Papua New Guinea (PNG) is an island nation located north of Australia within the South Pacific. It has a population of less than seven million people. PNG obtained its independence from Australia in 1975 and has a West-

[1] As always, your comments and suggestions regarding this column are most welcome. Please feel free to e-mail us at: lfthompson@ncsu.edu.

[2] The "majority world" consists of countries which have traditionally been characterized as "developing" and which house the vast majority of the world's population.

[3] Leo Marai is Senior Lecturer in Psychology at the University of Papua New Guinea and a former head of the psychology strand at that university. Leo is also a joint-editor of the *Journal of Pacific Rim Psychology* and Outgoing Co-Chair of the Global Organisation for Humanitarian Work Psychology.

minster democratic system of government. The majority of the people (90%) who occupy this island nation are known as Melanesians, with many different ethnic groups speaking over 800 languages. The education system is a direct imitation of the Australian–British system, including the study of psychology in PNG (Marai, 1997). According to poverty statistics, 37–40% of the people live below the economic poverty line (World Bank, 2013). The rate of poverty needs serious attention both from the PNG government and from organizations concerned with humanitarian work in order to meet the United Nations Millennium Development Goals (United Nations, 2012).

The History of Psychology and I-O Psychology in Papua New Guinea

The history of Western psychology in Papua New Guinea began in 1967 when the Department of Psychology and Philosophy was established at the University of Papua New Guinea. At the time, the discipline's primary focus was on organizational, education, and clinical psychology. However, a great number of psychologists holding postgraduate qualifications in PNG were not trained within the country but were trained in other nations. During colonial times, many psychologists served in the civil service where the focus was on testing and selection of indigenous populations in the work force. These psychologists were all foreigners, mostly Australia and British citizens. Indigenous Papua New Guineans were not the producers, but instead largely the recipients, of psychological knowledge. Even today, Western psychology is learned and practiced in PNG without much modification. What students learn and research is essentially a replica of North American and European psychology. Nonetheless, I-O psychology is the biggest subdiscipline in psychology at the University of Papua New Guinea (the only psychology department in the country). Even in comparison with other social science disciplines at the University of Papua New Guinea, I-O psychology is popular among students. Most student graduates end up working in organizations, such as branches of the federal government and mining companies. They are often housed in human resource and training departments. These psychologists focus on core I-O topics, including selection, recruitment, testing, and performance appraisal. Few I-O graduates conduct research, and when they do, their research is largely focused specifically on the needs of the organizations that employ them. In summary, psychology, and in particular I-O psychology, has a short history in PNG, and the discipline is still developing an indigenous identity.[4]

I-O Psychology Training in Papua New Guinea

Students majoring in organizational psychology complete a 4-year undergraduate BA degree. The courses required for this degree include: Introduction to Psychology, I-O Psychology I, I-O Psychology II, Human Factors, Psychological Testing and Assessment, Social Psychology, and Quantitative

[4] See Marai (1997) for a more general review of psychology in PNG.

Methods in Psychology. Students are also free to take courses from other disciplines or other psychology courses for their minors. I-O Psychology II students complete an internship with an organization in order to apply some of the knowledge and skills gained in I-O Psychology I and other subjects. Those students with high GPAs can complete a BA Honors degree that takes 1 additional year to complete. The honors degree, in addition to master's degrees and PhDs, are completed through full-time research. A master's thesis takes 2 years, and a PhD takes a minimum of 3 years. In order to pursue a PhD, one must have completed a master's degree ahead of time.

How I-O Psychologists Meet and Network

At present, I-O psychologists in PNG do not have a professional body, but they do tend to join with other related associations such as the PNG Human Resource Institute. This institute holds an annual international conference in PNG where I-O psychologists, HR experts, and others within the country and abroad can meet to present and discuss their work and research. At the conference, human resource research and best practices in organizations are presented according to the selected theme of the conference. Despite the communication and collaboration stemming from this conference, the overall amount of professional networking for I-O psychologists is very limited because of a lack of a professional association to guide and stimulate the practice of I-O psychology in PNG. The lack of a professional association is also problematic because current professional practice is rather unregulated and casual.

A Personal Perspective

My personal belief about psychology in PNG is that the study of psychology must have a context focused on indigenization. This means that students must study a kind of psychology that best reflects the behaviors that primarily concern themselves and others around them and that reflects the context of the social and cultural environment they live in. In other words, the kind of psychology that psychologists in general and I-O psychologists in particular should study must relate to the realities of their society. Once we begin to conceptualize and understand the unique psychological determinants of behavior in the PNG context, we can apply that knowledge to alleviate human suffering. In my own research, I have concentrated on issues relating to unjust and discriminatory pay discrepancies between expatriate workers and locals. This work ties in with my other work that looks at how conceptualizations of work motivation and well-being are driven by Western theories and perspectives (e.g., Marai, 2002/3; Marai et al., 2010). Going forward, I believe interesting and novel findings will continue to be uncovered as we promote an indigenous understanding of the links between these behavioral constructs.

Summary and Conclusion

I-O psychology is still trying to find its place in Papua New Guinea despite its popularity in attracting students. As pointed out in Marai (1997), the development of psychology in PNG looks bleak. In order to generate the development of I-O psychology and psychology in general, we must begin the process of indigenization. From there, then we can start building an appropriate psychology and I-O psychology that is relevant for Papua New Guinea. My view is that I-O psychology must concentrate on issues related to enhancing social and economic development while retaining an emic indigenous perspective. Humanitarian work psychology (www.humworkpsy.org), the emerging subdiscipline devoted to studying organizational psychology's interaction with humanitarian work and international development, holds promise; but ultimately the development of I-O psychology in Papua New Guinea must be owned by local Papua New Guineans.

Concluding Editorial

So there you have it, a compelling and personal look into the challenges and current status of I-O psychology in Papua New Guinea. As highlighted by Leo, ensuring that I-O psychologists from the majority world are able to effectively contribute their voice to the international dialogue in I-O psychology is crucial to advancing the global nature of the discipline and the applicability of its tools and theories to local realities. We sincerely hope that in its move to an entirely online format, *TIP*, and this column, can even more effectively serve as a venue for voices from around the world.

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#TheFutureIsNow: Facebook, Beloit, and *TIP* Online

Satoris S. Culbertson
Kansas State University

I'm teaching a new prep this semester: Honors General Psychology. Although I've taught General Psychology so many times that I can give a lecture in my sleep, I wanted to do something different. And because these are honors students, I felt more comfortable taking a different approach to the course. So, although normally I abide by the unspoken rule within academia that you're not supposed to be excited about a new prep, I was excited. I decided that, rather than use a standard introductory textbook, I would use some popular press psychology books (namely, *Psychology of the Simpsons, Psychology of Survivor,* and *Psychology of Superheroes*) and interweave the course content through these books. My intent was that, by using these books, the application of the psychological principles would be clear, as they could relate the points to well-known characters and situations. It was going to be amazing.

On the first day of class, I asked for a show of hands for those students who watch *The Simpsons*. In a class of 15 students, one student raised her hand. Oh boy. How many had at least watched *The Simpsons* in the past to be somewhat familiar with it? All but one hand went up. Whew. Ok, so who watches *Survivor*? One hand. Familiar? Three hands. Uh oh. Who likes superheroes? Three people. To this my jaw dropped and all I could say was, "C'MON! BATMAN!!!!"

Thankfully, none of this mattered (or seems to have mattered, as the class is ongoing). The students are engaged, actively participating, and learning the material despite not having a great understanding (or appreciation) of *The Simpsons, Survivor,* or superheroes. (Then again, they are honors students.) Nevertheless, I was disappointed that my book choices weren't an instant hit.

I don't know why I was surprised. It may be hindsight bias talking here, but I should have known. A friend of mine recently wrote on Facebook that she could have sworn she was listening to a classic rock station until the DJ informed her that it was, in fact, an oldies station. An item on Pinterest informed me that Maggie Simpson, if she aged, would be 24 years old. And, sadly, I still remember the first time I made a reference to *Wayne's World* in a class and got blank stares.

The notion of outdated cultural references in the classroom has even been the premise of the wildly popular Beloit College Mindset List (http://www.beloit.edu/mindset) since 1998. This list, which points out some

factoids about students entering their first year of college, is always good for a "no way!" reaction. For example, when I read that few incoming freshmen know how to write in cursive, I couldn't believe it. My undergraduates have, however, let me know that this is, indeed, the case. As one student said, "It's like calligraphy. I practice it when I'm bored in class." (I like to believe that meant he never practiced it in my class.)

Clearly, times are changing, as they always have been and always will. This issue of *TIP* is a great example, as it is the last print version that will ever be. Although I can recall flipping through *TIP* issues as a graduate student (and beyond), students entering I-O programs will never have a current issue of *TIP* arrive in their mailboxes through which to peruse. Rather, their only knowledge of *TIP* will be in its online form (unless, of course, they are lucky enough to inherit an office with a lot of back-issues).

At first this seemed sad to me. But then I realized that, yet again, I was forgetting to consider what this generation of students is accustomed to—and what they want. When I look at our graduating seniors and first-year graduate students, I'm reminded that much is done electronically. And really, not just for them, but for my generation—and those before mine—as well. Whereas there was a time when we would use reference books to locate information, Internet search engines have become the norm. If we have a quick question, we "Google" it. If it's not "Googleable" (that's a word, right?), we can "Facebook" it. Yes, Facebook. Not only is it a social networking site, in part responsible for conference conversation starters changing from "What have you been up to this year?" to "I saw you had an amazing steak for dinner 2 days ago," but it is also a tool for academics. I have used Facebook to ask questions regarding teaching and research to colleagues—and others have done the same. And the answers are fast and (mostly) accurate. The issue, really, is how to cite the information I receive. I'm not worried about it though, as I'm sure that will be in the 7th edition of the *APA Style Guide*.

In 1995, an article by Clifford Stoll was published in *Newsweek*, purporting that the Internet wouldn't really catch on and was just a passing fad. It seems he's wrong, and the Internet is here to stay. Thus, although I'll admit that I'm sad to see the print version of *TIP* going away, I'm comforted by the fact that *TIP* will still be around—and in an even more accessible format. Maybe I'll even tweet about it when the next issue comes out—you know, after I have one of my students help me set up a Twitter account (#justkidding #notcoolenoughtotweet #wonderinghowlongahashtagcanbeandstillmakesenseandberead). See you online!



MAX. CLASSROOM CAPACITY

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I have to tell you… this is hard for me. Writing words that I know will be printed with ink and then sit on a shelf where they can be taken down and held for years to come is a different emotional experience for me than writing words that will forever remain digital. For me, it just is.

I do understand why *TIP* is making the change to a digital format. The other day, my wife was talking to my 15-year-old son, who carries a massive backpack full of his schoolbooks back and forth to school every day. She asked him "What would you think if you could have all of your textbooks on an iPad, so that that was all you had to carry?" His eyes got wide, and he said "They could do that?" The idea was entrancing to him. And not long ago, there was a point in a conversation where I realized that a recent *TIP* article would be useful to a newly met colleague at a conference I was attending. I jumped online, found the article, snagged the pdf, and sent it on to my colleague—and realized that that's pretty much how I interact with my resources most of the time now. In fact, I was delighted that I didn't have to say "Oh, there's this great article—when I get home, I'll find it and send it to you." In short, the online technology allowed me to better meet my goal of sharing a resource with a colleague.

I understand all of that that. But I have on my shelves Donald Laird's *The Psychology of Selecting Men* (1927), Henry Link's *Employment Psychology* (1922), May Smith's *Handbook of Industrial Psychology* (1944), a first edition of *The Human Side of Enterprise*, and several other wonderful old books from our field. I also have *TIP* going back to my days as a graduate student. So when I heard about *TIP's* move to being an electronic publication, I at first wasn't happy. I like my books, and I like having them around me. I believe (rightly or wrongly) that I write better in my office, surrounded by my books and journals (including *TIP*) than I do anywhere else. I just feel more comfortable that way.

I think people's feelings about *TIP* going all-digital are similar to feelings about all-digital text "books." And when I look out into my classroom, I see far more tablets and laptops with the ebook up on the screen than I see copies of the textbook—and I'm at an urban institution, with lots of students in lower SES. When I look at my 3-year-old goddaughter Sasha, I watch her pick up an iPhone, unlock it, scroll to her favorite app (a learning app that she simply calls "Monkey"), and away she goes. For Sasha, definitely, and for the students already in our classrooms, digital is what makes sense. It is the water in which they swim.

So what is our resistance to digital when it comes to textbooks and when it comes to *TIP*? Certainly it is true that not all of our students have any at-home Internet access, much less high-speed access. Certainly it is true that some of

our students—especially those who are older, second-career, or who did not have much or any computer access while growing up—are less computer literate and struggle to master the technology when we'd rather they were struggling to master the concepts. But it seems to me that there are a few larger, and more personal, issues that keep many faculty from being as open to these shifts.

First, it just isn't what we grew up with. I was mad when I realized that many doctoral students are not learning matrix algebra—I had to, so why don't they? But then my more senior colleagues remind me that they were mad when they realized that many doctoral students were no longer required to learn two, or even one, foreign languages. So one piece of our resistance seems to simply be that it's a different experience than what we're used to.

The second concern, I think, is that many of us believe "If it ain't broke, don't fix it." There's the old stereotype about the professor with the yellowed legal pad class notes, which makes it sound like the professor is just lazy and way out of date. But you know, those notes worked for that professor, and it's sometimes hard to find something that works better, or perhaps more accurately, it's hard to find something different that feels like it is working better than the thing I've been doing successfully for a long time.

Finally, most of the digital stuff many of us have seen just isn't very exciting. Yes, we can get pdfs of articles, but they don't take advantage of the digital format at all—they are just digital recreations of what we'd see if we had the journal in front of us. In fact, that was the advantage of this form of digital files, at first—they were identical, and thus just as good, as the journal. But just as good isn't good enough, and it isn't what it could be. Why can't digital mean that video is embedded? Why can't digital mean that graphs are rotatable (like polynomial regression or cusp catastrophe models—they're three-dimensional models represented in two-dimensional space! Why can't digital versions do more?)? Why can't digital *TIP* include video clips from keynotes at the SIOP conferences? In short, what we've seen, and typically expected, of digital formats just isn't very much. If the new *TIP* looks just like the old *TIP* but arrives in my email inbox instead of my mailbox, I'll be greatly disappointed.

So yes, I will miss the printed *TIP*. I will miss having to shove the new issue into a bookshelf that is already crammed full. I will miss the feel of it, and the pleasure of adding yet another issue to a collection that links me back to my grad school days. I'm with you on that. But just as I've come to appreciate the possibilities of a fully digital course text, I'm eager to see what the new *TIP* will bring in terms of making the journal better than before—more dynamic, more interactive (voting from directly within *TIP*, anyone?), and ultimately, more useful (salary survey data that is downloadable from within *TIP*?).

And if we can get used to *TIP* being digital, and to getting our favorite columns online, then maybe, just maybe, more of us will explore the digital textbooks that our students are already ready for.



TIP-TOPICS

The Top Trends in I-O Psychology: A Graduate Student Perspective



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As the field of industrial-organizational psychology nears 100 years of existence, it is interesting to think about its evolution in response to changing work environments. Thanks in large part to technological advances, trends in the modern workplace include increased globalization, virtual work, and technology-enabled platforms that drive recruitment, selection, and training. These trends, in turn, shape I-O research agendas. In addition, compared to I-O's early emphasis on employee productivity, issues such as employee development, happiness, health, and work–life balance now receive serious attention. In this edition of **TIP-TOPics**, we highlight what we believe to be the top-10 current trends in I-O psychology research and practice, as well as how these areas may continue to evolve going forward.

1. Globalization and the Virtual Workplace

Gone are the days where an organization's primary competition was the rival across town; competitors now exist at the global level. When larger organizations want an accurate representation of their industry standing, they now refer to *Fortune's* Global 500! Increased globalization has many implications for I-O. For example, globalization may increase the importance of cross-cultural leadership, with accompanying changes in organizational policies and practices. Leaders increasingly realize the importance of retaining heterogeneity from the team level to the national level rather than enforcing a single organization-wide set of practices. Such inclusive cultures allow organizations to capitalize on the strengths of employees from all backgrounds and to garner their "buy-in" and support (e.g., Moran, Harris, & Moran, 2010).

Globalization has also enhanced the need for, and the use of, virtual workplaces. Virtual workplaces may well change both how I-O psychologists perform their daily duties and the scope of their projects. Technological advances such as electronic whiteboards and Skype™ allow collaboration with people sitting on the opposite side of the world. I-O researchers and practitioners may want to seize the opportunity to investigate issues involving virtual workplaces such as (a) how they impact social relationships, (b) whether employees feel the same level of commitment in such environments, and (c) their effects on organizational culture and communication.

2. Internet-Based Recruitment and Selection

Job seekers are increasingly less likely to search for job openings in the newspaper and travel to organizations in person to complete paper-and-pencil applications. Today, many organizations find it in their best interest to enhance their online presence to attract desired applicants. Once attracted, job seekers can use the Internet to complete job applications, upload their resumés, and participate in virtual job tryouts. Organizations transitioning to a greater online presence may want to consider the implications of that change. For example, the composition of the selection pool may change if younger adults are more likely than older adults to possess the access and technological skills needed for online applications. Although this may become a nonissue as older job seekers also have computer experience, it is concerning now, given that Ryan and Ployhart (2000) found that applicants may view online selection processes as unfair when the position sought does not involve computer work.

In spite of some drawbacks, online selection systems have many benefits. Less paper is wasted. Applicants across the globe can apply on their own schedules, regardless of their time zone or physical location. Electronic systems are also built to adapt to the applicant, often providing training and immediate feedback. In addition, assessments can still be proctored at a testing center or at a later date following the initial screening. Future research will need to continue to assess how organizations can best utilize the Internet, including more knowledge about how to optimally combine Internet-based selection components with more traditional components such as interviews.

3. Defining Limits for Online Searches of Personal Information

Perhaps you want to know which famous North American landmark is constantly moving backwards, or the only vegetable or fruit that is never sold frozen, canned, processed, cooked, or in any other form except fresh. These days, such unknowns are likely to lead to a quick online search.[1] Not surprisingly, as society has developed a "just Google it" mentality, online searches are used in such workplace contexts as employee selection and monitoring current employee activity. Indeed, 84% of surveyed employers reported that they use Internet search engines as an HR tool (SHRM, 2008). I-O professionals would benefit from more exploration of the implications of such easy access to employee personal information. For example, the legal ramifications of finding discriminatory information (e.g., race or disability) may outweigh the benefit of identifying red flags. Relatedly, California recently became the first state to enact a comprehensive social media privacy law protecting employees and job applicants from having to give current or potential employers their online profile passwords to services like Facebook and Twitter (National Conference of State Legislature, 2013), with five other states in the process of passing similar laws to ensure applicant privacy, and likely others will follow.

[1] "Niagara Falls" and "lettuce."

4. Innovation

Innovation is critical to driving our economy. Consider the wireless phone industry. Fifteen years ago, people were happy to have a wireless phone for emergency use. That a phone had the capability to provide directions, allowed access to Facebook, and streamed online movies would have seemed like something out of the Jetsons. Today such phone capabilities are routine, and innovative new functions are added almost continually. The push for constant innovation to remain competitive and simply to survive in a volatile economic environment (e.g., Voss, Sirdeshmukh, & Voss, 2008) is characteristic of many industries, not just the cell phone industry. However, innovation must be undertaken strategically and purposefully to gain the most organizational benefits. Organizations should have a clear purpose for all innovative initiatives, and they must also act within employee and organizational limits to change. I-O psychologists can do much to better understand and help organizations achieve an optimal level of innovation and change.

5. Technology-Enabled Training

In both work and academic settings, classroom-based training is being abandoned in favor of technology-driven alternatives. Simulation centers provide hands-on training that allows trainees to learn under conditions that would be too dangerous, rarely occurring, or otherwise prohibitive in the real work environment. For example, surgeons can practice surgeries that may be rarely performed in an ER but are crucial for saving someone's life. Virtual classrooms—as opposed to traditional classrooms—allow instructors to reach many more students at one time without the added costs of bringing everyone to the same location. Employees may also be looking for trainings that are customizable to their needs and can be completed in sessions timed to match their schedules. We expect this trend to gain even more momentum in the future. As long as there are advances in technology-based training platforms, organizations will continue to find such alternatives to be increasingly more affordable and accessible with high fidelity.

6. Heavy Focus on Developing the Top Employees

Every company has a few employees who are truly outstanding. These high potentials (typically the top 3–5%) are invaluable assets that organizations go to great lengths to identify, retain, and develop. Unfortunately, a study by the Corporate Executive Board (2010) found that 25% of employer-identified "high-potential" employees plan to leave the company within the year (compared to only 10% in 2006). This survey indicated that there is a growing concern that high-potential employees are becoming increasingly less engaged in their work. As organizations increase their investment in grooming high-potential employees, researchers need to validate high-potential identification systems and to evaluate the best ways to retain and develop these talent superstars.

7. Increased Coaching in the Workplace

Companies are hiring executive coaches to assist in employee development at a growing rate (DBM, 2012). Large consulting firm DBM projected in 2012 that organizations will use coaches to (a) help executives achieve higher performance, (b) groom high-potential employees, and (c) enhance team effectiveness. Moreover, a study conducted by the International Coaching Federation Global Coaching (2012) found that there is an opportunity to increase the awareness of coaching benefits and to develop credible data that shows ROI/ROE for hiring an executive coach. Future issues that need to be explored include figuring out whether coaching should be regulated, in addition to identifying (and potentially stopping) untrained individuals who call themselves coaches.

8. Proactive Approaches to Improve Employee Health

A recent survey by the National Association of Professional Employer Organizations reported a staggering 41.7% of employers consider health care costs to be the most serious challenge to their bottom line. Combining this concern with the finding that 66% of Americans are overweight or obese (CDC, 2010), increasing attention has been given to the organizational benefits of investing in workplace health. Moreover, research consistently finds that compared to healthy employees, unhealthy employees tend to have higher medical expenses, absenteeism, and presenteeism (e.g., Kowlessar, Goetzel, Calrs, Tabrizi, & Guindon, 2011). As a result, organizations are turning to health and productivity management programs because it is too expensive not to invest in the health of their employees. We will likely continue to see increases in evidence-based wellness programs that include incentives for employees to become healthier.

9. Facilitating Work–Life Merge

Facebook executive Emily White coined the term "work–life merge" to describe a life where work and personal activities are so intertwined that it becomes impossible to neatly compartmentalize the two. This concept differs from aiming for balance because the balance approach tends to assume that work—the hard grind—is the opposite of life—a time of pleasure. Employees with work–life merge tend to be individuals who enjoy their work and want to customize it to best fit their lifestyles. The classic example is of a working parent who wants to fit work responsibilities around family time, perhaps finishing up the day's work after the children have gone to bed.

Because the concept of work–life merge is relatively new, researchers have yet to uncover the consequences (or benefits) of being permanently "switched on." For example, the few extra hours a "merger" works at night counter traditional research suggesting that employees need to psychologically detach from work to recover from job stressors. Going forward we may see an increased

focus on strategies that help people better manage stress throughout the workday. In addition, trends towards globalization and virtual workplaces likely mean more employees will find themselves living the work–life merge.

10. More Tweeting, Blogging, and Electronic Platforms

Many of the trends that we have discussed are linked to technology in some way. How we learn about the advances in our field, make connections with colleagues, search for jobs, and keep up with news will all continue to transition to online platforms. Further, companies will likely continue to enhance their online presence via outlets like Twitter and online blog forums, including hiring "social media experts." Such transitions pose advantages, from the speed with which information can be transmitted to savings in cost and resources. *TIP* itself is experiencing the transition and emphasis on online forums, given that this will be the last issue to be put in print. As these online platforms are relatively new, we cannot definitively say where this trend is going, but it is certainly worth researching the impacts on organizations.

So, there you have the top trends in I-O psychology as we see them. Ultimately, you will be the judge—it is 2013, and the virtual world awaits your thoughts and ideas as to where the field should go next. Thanks for reading, and we will see you one last time in the next issue of *TIP* as our team at Akron says farewell after our 2-year stint with **TIP-TOPics**! Until then, feel free to contact us at akrontiptopics@gmail.com.

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ON THE LEGAL FRONT



Thirteen Years of On the Legal Front

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On the Legal Front began with the July 2000 issue of *TIP*. Because this is the last "hard copy" edition of *TIP*, we want to take the opportunity to reminisce about the highlights of the past 13 years. Art will provide an overview on how the column originated and key cases and topics covered during the first 7 years, Eric will cover the last 6 years, and we will present our conclusions on what we have learned and what we think the future holds for legal issues in the workplace.

By Art Gutman

The column had a serendipitous beginning. I submitted an article to **Alan Church** for the January 2000 issue of *TIP* covering four 1999 Supreme Court rulings on the ADA (*Sutton v. UAL, Albertsons v. Kirkingburg, Murphy v. UPS,* and *Cleveland v. Policy Management*). I called Alan to ask him whether the article was too long (which, as Eric notes, happens sometimes). During our chat, he gave me a "by the way" suggestion about writing a column on legal issues. I jumped at the opportunity but was lost for a title. He suggested **On the Legal Front,** which I thought was catchy. This is the 52nd **Legal Front** column, during which there have been five *TIP* editors (Alan Church, **Debbie Major, Laura Koppes, Wendy Becker,** and **Lisa Steelman**). Each has played a significant role in the column's evolution. There have been guest columns from time to time, including two by **Don Zink**, one by Eric prior to collaborating with me, one by **Jim Outtz**, and a recent one by **Kayo Sady** in the January 2013 issue.

Eric and I thought it would be useful to summarize the topics we've covered in tabular form. Table 1 covers 2000 to 2006 and Table 2 covers 2007 to 2013. We used our own subjective classification schemes, and in cases or issues where columns focused on more than one topic, we made multiple classifications.

To illustrate, *Kimel v. Florida Board of Regents* (2000) and *Bd. of Trustees Univ. of Alabama v. Garrett* (2001) were controversial 5–4 decisions in which the Supreme Court ruled that Congress abused its 14th Amendment powers in extending ADEA and ADA coverage, respectively, to state entities. *Kimel* was therefore classified as both ADEA and congressional overreach, and *Garrett* was classified as both ADA and congressional overreach (thus accounting for the two citations for congressional overreach in the table). Similarly, *EEOC v. Waffle*

House (2002) was classified as both ADA and EEOC enforcement because the Supreme Court endorsed the independent power of the EEOC to bring lawsuits in the face of preemployment binding arbitration agreements in an ADA case. Incidentally, after *Waffle House,* lower courts endorsed the independent right of the EEOC to also sue state entities for ADEA and ADA claims as well.

Another point to note is that for some of the major Supreme Court rulings, a case was previewed in one column and the ruling was discussed in an ensuing column, thus adding to the count for a given classification. For example, The *Waffle House* case was previewed in 2001 and the ruling was discussed in 2002. In a more extreme example of this, the *Grutter v. Bollinger* (2003) and *Gratz v. Bollinger* (2003) cases had two previews followed by a discussion of the rulings.

Table 1
*Topics Covered in the **Legal Front** Column From 2000–2006*

Primary topic area	Frequency in the **Legal Front** columns 2000– 2006
Disability discrimination (ADA)	8
Affirmative action/reverse discrimination	5
Sexual harassment/constructive discharge	5
Adverse impact theory	3
Disparate treatment theory	2
Age discrimination (ADEA)	2
EEO enforcement agency enforcement	2
Congressional overreach	2
Employer retaliation	1
Backlash religious/national origin discrimination	1
Other	2

Even with multiple classifications, the dominant focus during my tenure as sole scribe was the ADA. Aside from the aforementioned *Garrett* and *Waffle House* cases, there was *Casey v. PGA Tour* (2001), *Toyota v. Williams* (2002), and *US Airways v. Barnett* (2002). Each case was important. I also wrote a column on the ADA for October 2002 issue in an attempt to explain why ADA case law is as complex as it is.

The key feature in the *Martin* case was refusal to allow a severely injured golfer to use a golf cart during PGA Tour events. The PGA argued that walking is an essential function of tournament golf and to allow carts would alter the "fundamental nature" of these events. I did not like this rule because it would allow the PGA to define itself out of the ADA, much like any employer could do if allowed to dream up essential job functions that would not stand up to a job analysis. The Supreme Court disagreed with the PGA, ruling that shot making was the essential function.

The *Barnett* case featured an injured employee's lost bid for a vacant job because of insufficient seniority, a common roadblock in ADA case law. However, unlike most cases, where seniority agreements are collectively bargained (CBAs), the US Airways policies were company imposed. The

Supreme Court ruled that absent proof of discriminatory intent, company imposed plans carry the same weight as CBAs.

The prelude to *Toyota v. Williams* was Justice O'Connor's query in *Sutton v. UAL* on working as a valid major life activity. Williams, a carpal tunnel victim, claimed severe restrictions on manual tasks required to perform some of her job tasks. O'Connor viewed this as an attempt to circumvent the claim of working as a major life activity and defined manual tasks as those "central to daily life" (e.g., bathing, brushing teeth, household chores, etc.), which Williams could do. However, as Eric will explain below, this ruling was overturned in the ADA Amendments Act (ADAAA) of 2008, as were the 1999 rulings in *Sutton v. UAL, Albertsons v. Kirkingburg,* and *Murphy v. UPS.*

Among the five classifications on affirmative action (AA), a 2001 column focused on the 10th Circuit ruling in *Adarand v. Slater* (1999) on a federal Department of Transportation (DOT) set-aside program, a 2002 column discussed why AA is not a homogenous phenomenon, the three aforementioned 2003 columns on the *Grutter* and *Gratz* cases, and a 2004 column on the 7th Circuit ruling in *Petit v. City of Chicago* (2003).

The prelude to Slater included Supreme Court rulings in *Richmond v. Croson* (1989), *Metro v. FCC* (1990), and *Adarand v. Pena* (1995). *Croson* dictated that nonfederal set asides are governed by strict scrutiny rules (a compelling government interest matched by a narrowly tailored solution), and *Metro* dictated that federal set asides are governed by less heightened moderate scrutiny rules (an important government interest matched by a substantially related solution). The Supreme Court then reversed its *Metro* ruling in *Adarand v. Pena*, requiring the DOT to pass strict scrutiny. The DOT then created a new and improved set-aside program that was deemed to pass strict scrutiny by the 10th Circuit in *Adarand v. Slater* (1999), and the Supreme Court, which was set to review the 10th Circuit ruling, deemed the case "spoiled" in *Adarand v. Slater* (2000).

At stake in *Grutter* and *Gratz* was the viability of *Regents v. Bakk*e (1978), in which Justice Powell ruled that diversity is a compelling government interest with a possible narrowly tailored solution (i.e., the Harvard Plan). However, Powell's ruling was "fragmented" (i.e., no other justice agreed with his entire argument), prompting some lower courts to question whether *Bakke* is good law. Considering both *Grutter* and *Gratz* together, only one justice (Thomas) questioned whether *Bakke* is good law, and no other justice argued that diversity is not a compelling government interest. The disagreements were on whether the plans were narrowly tailored. As it turned out, predictions from my preview of these cases came true and the University of Michigan law school plan (*Grutter*) passed (mainly because it featured individualized consideration of applicants), whereas its undergraduate plan (*Gratz*) failed (mainly because it lacked such consideration). The 7th Circuit ruling in *Petit* then used *Grutter* to support race-based preference in a police promotion case.

As for sexual harassment, I wrote two columns in 2004 (both on *Pennsylvania State Police v. Suders* (2004), two in 2005 (sexual harassment rul-

ings in other English-speaking countries and same-sex harassment), and one that featured both sexual harassment and retaliation in 2006 (*Burling Northern Santa Fe (BNSF) v. White*, 2006).

Nancy Suders clearly suffered hostile sexual harassment (harassment severe and/or pervasive that interferes with job performance). However, there were residual questions as to whether there was also a constructive discharge (a reasonable person would feel compelled to resign), and if constructive discharge implies strict liability (no defense) as opposed to vicarious liability (an affirmative defense that a policy was in place to prevent and quickly correct harassment and the victim unreasonably failed to use it). Suders won on harassment and constructive discharge. At the time, I questioned whether a ruling on constructive discharge was necessary (I said "they missed the boat") because it seems impossible to suffer the kind of harassment Suders did and lose to an affirmative defense. In hindsight, I think I missed the boat as I've more than once seen constructive discharge absent hostile harassment since the *Suders* ruling.

As for the other two sexual harassment columns, I was struck by how closely other English-speaking courts (UK, Canada, New Zealand, Australia, and Ireland) follow our sexual harassment rulings, and I felt there was a major fault in Justice Scalia's same-sex harassment ruling in *Oncale v. Sundowner* (1999). Scalia ruled that same-sex harassment must be based on sex, thus allowing for a loophole adopted by some courts (and rejected by others) that atrocious acts can be legally committed in the name of "horseplay" (i.e., nasty acts involving sexual parts being excused because they were committed by heterosexual actors who were fooling around).

Among the three adverse impact citations, a 2003 column discussed the complexity of Title VII adverse impact court cases and a 2004 column featured what I called "ground rules" for understanding these cases. The third column (*Smith v. City of Jackson*, 2005) featured a 5–4 majority endorsing adverse impact as a valid ADEA claim but with different rules than in Title VII (i.e., proof of reasonable factors other than age rather than job relatedness). Two things struck me here. First, Justice Stevens, a dissenter in *Wards Cove v. Atonio* (1989), ruled that *Wards Cove*, though inapplicable to Title VII, applies to the ADEA. This was a confusing ruling that was later clarified in *Meacham v. KAPL* (2008). Second, Scalia was the deciding vote in *Smith*, and he opined that Title VII rules should also apply to age-based adverse impact. What's startling here is that Scalia subsequently questioned whether the Title VII adverse impact rules are constitutional in *Ricci v. DeStefano* (2009). Eric discusses both *Meacham* and *Ricci* below.

The two disparate treatment rulings in Table 1 are *Reeves v. Sanderson Plumbing* and *Desert Palace v. Cost*a (2003). *Reeves* corrected a misperception of *St. Mary's v. Hicks* (1993), in which a 5–4 majority of justices supported a district court judge who believed there was indirect evidence of discrimination of Hicks (a Black employee treated more harshly treated than similarly situated White employees), but who also believed the harsher treatment was personal not racial. In *Reeves*, a jury believed that harsher treatment

of an older employee was age based, and a unanimous Supreme Court upheld this ruling. The moral, therefore, is that it's up to the trier of fact (judge or jury) to believe or disbelieve indirect evidence of discrimination. In *Costa* (2203), the Supreme Court ruled that indirect evidence is also sufficient for a prima facie case of mixed-motive disparate treatment. Prior to *Costa*, most lower courts required direct evidence of discrimination (e.g., eyewitness, tapes, e-mails, etc.) to initiate a mixed-motive claim.

The "other" cases in Table 1 include a 2002 column on the implications of "backlash" religious or national origin discrimination after the 9/11 attacks (hence the double classification as both other and religion/national origin). The other "others" featured three columns on the justices themselves, including a 2005 column on Justice O'Connor's legacy after she retired from the Supreme Court, a 2006 column on the implications of the addition of Justices Roberts and Alito for major EEO issues, and another 2006 column comparing Justices O'Connor and Alito with respect to major rulings during O'Connor's tenure on the Supreme Court.

Finally, the last column in 2006 covered the *BNSF v. White* ruling on retaliation. In general, there are three prongs to a retaliation claim: (a) opposing an employer policy or making a formal charge; (b) an adverse action; and (c) a causal connection between prongs 1 and 2. The *BNSF* ruling focused on the adverse action (prong 2). All nine justices ruled that White suffered an adverse action and causally connected it to her opposition against employer policies. However, eight of them endorsed a plaintiff-friendly "deterrence standard" (that a reasonable person would be dissuaded from opposing discrimination or filing a formal claim), and one justice (Alito) endorsed the more employer-friendly "adverse employment" standard (requiring interference with the terms and conditions of employment). All nine justices rejected the most employer-friendly "ultimate employment" standard (requiring actual violations of law involving hiring, termination, promotion, etc.).

After the last 2006 column, I asked Eric to write a guest column for the January 2007 issue, I wrote my last sole scribed column for the April 2007 column, and our first collaborative column was for the July 2007 issue. So at this juncture, I will turn it over to Eric.

By Eric Dunleavy

I joined **On the Legal Front** in 2007 after writing a guest column on the implications of the Supreme Court ruling in *BNSF v. White*. Art's articles on this ruling familiarized the I/O community with a form of discrimination that, until recently, had been staying under both the I-O and HR radars. Although antiretaliation protection is intuitive, deconstructing the Supreme Court ruling was not, and Art did a great job (a) introducing the concept and the legal scenario, (b) describing why it was an important and suddenly controversial EEO topic, and (c) providing recommendations for I-O and HR practitioners on how to insulate from retaliation claims and how to minimize the likelihood

of retaliation happening to begin with. I followed up with a survey of retaliation case law, and concluded that, although claims of retaliation may skyrocket for a variety of reasons (including the Supreme Court's endorsement of the deterrence standard), it isn't necessarily easier for a plaintiff to win a retaliation case than it was pre-*BNSF v. White*. It was a fun time to come on board (and I think my post-*BNSF v. White* predictions were correct….sort of).

Since I came on board in 2007 we have continued to try to meet three basic goals with the column. First, we want to update the general I-O community on relevant legal issues in real time, with particular emphasis on hot-off-the-press court rulings, changing laws, and contemporary EEO enforcement trends. Second, we want to consider the larger social and political context as a partial explanation for what is happening and why. Third, we want to dig a little deeper to understand the specifics of what happened and the potential implications. In other words, why did a court rule the way it did, why was a law changed, or why are enforcement agencies using particular strategies? This third goal explains why some of the longer columns are the length that they are. In some situations a set of rulings, the historical context of a law, or long term EEO enforcement patterns are necessary to understand in order to comprehend what just happened. Of course the alternative explanation is that Art wrote the column.

Table 2 summarizes column topic areas since 2007. As Art described earlier, this is a subjective classification scheme, and in cases where articles focused on more than one topic credit could be given to multiple categories. In some cases classification decisions were made based on I-O specific considerations. For example, although *Ricci v. DeStefano* was a disparate treatment "reverse discrimination" case, the adverse impact analyses and employment test-related context at the foundation of the case led me to categorize it as a disparate impact/employee selection issue. As another example, some ADEA rulings were summarized primarily because of the adverse impact measurement issues, and as such were categorized as a disparate impact/employee selection issue. Table 1 shows these results.

Table 2
*Topics Covered in the **Legal Front** Column From 2007–2013*

Primary topic area	Frequency in the **Legal Front** columns since 2007
Traditional disparate impact/employee selection	10
Large ccale pattern or practice cases	4
Employer retaliation	4
EEO enforcement agency enforcement	4
Pay equity	3
Age discrimination (ADEA)	2
Disability discrimination (ADA)	2
Affirmative action/reverse discrimination	2
Sexual harassment	1

Some clear patterns emerge. First, traditional disparate impact/employee selection was the most common topic in this column from 2007–2013. This is not a surprise given that these cases are likely most relevant to I-O psychologists involved in developing, validating and monitoring personnel selection procedures. Since 2007 there have been two Supreme Court rulings in this area (*Ricci v. Destefano* and *Lewis v. City of Chicago*) and a number of EEO agency enforcement actions centering on this issue. *Ricci* and follow up rulings and settlements were fascinating examples of how employee selection happens in a particular political and social context, and those contextual factors matter when it comes to legal defensibility. These cases also exemplify the diversity–validity dilemma that many organizations struggle with. Although many misinterpreted the ruling to have much larger implications than it did, the message was clear: Decisions based on protected group status are probably going to be considered discriminatory. In addition, the presence of meaningful disparities does not equate to a discriminatory selection system because the system may be job-related and without the clear availability of an equally valid alternative with less adverse impact.

Employer retaliation (*BNSF v. White, BNSF* follow ups, *CBOCS West v. Humphries, Gomez-Perez v. Potter, Thompson v. NA Stainless*, and *Kasten v. Saint Gobain*), large scale pattern or practice rulings (e.g., *Dukes v. Wal-Mart* and *Velez v. Novartis*), and EEOC/OFCCP enforcement were all tied for the second most common topics in this column. Since the *BNSF v White* Supreme Court ruling, protection from employer retaliation has expanded across both statute and contextual factors. This is one factor related to why retaliation claims are the most common claim made to EEOC today. The *Dukes* case certainly caught the attention of the popular press. The facts of the case and the ruling itself had many interesting dimensions, but at the end of the day the take-home message focused on a technical legal issue related to the glue linking a class of alleged victims together. Although the nationwide case failed, smaller geographic follow-up class actions related to this case may fill this column over the next few years.

Pay equity, age discrimination, disability discrimination, and sexual harassment round out Table 2. Pay equity made headlines with the Supreme Court ruling in *Ledbetter v Goodyear Tire* and legislative response via the Ledbetter Fair Pay Act. Broader protection and a pay data collection tool were proposed via the Paycheck Fairness Act, although that legislation has never been passed. A new iteration of the Act was rumored to be voted on in 2013. Subtle changes have been made to ADEA standards, particularly related to disparate impact scenarios. Large scale changes have been made to ADA protections via the ADAAA, which substantially expanded the definition of disability and essentially reversed rulings in T*oyota v. Williams, Sutton v. UAL, Albertsons v. Kirkingburg*, and *Murphy v. UPS*. Sexual harassment continues to be a priority for EEOC. Affirmative action/reverse discrimination in education will again be in the headlines when the Supreme Court rules on *Fisher v. Texas* in the summer of 2013.

Looking Toward the Future

Looking back on the last 13 years of this column has made us think about what will the next few years of the **Legal Front** will cover. Some thoughts:

- First, we expect to continue to see traditional employee selection disparate impact cases. These cases are relevant to the majority of I-O psychologists, and the frequency and scope of these cases don't seem to vary much with political changes in Washington DC. As of today the majority of disparate impact cases seem to involve police and fire department selection. It will be interesting to see if the future brings more private-sector disparate impact cases, particularly with EEOC's recent focus on credit and criminal background screens.
- Second, it will be interesting to track whether protection from retaliation is done expanding and whether these cases become more or less difficult for plaintiffs to prove. Retaliation has become the single most common complaint made to EEOC, and some retaliation claims can win in spite of meritless source claims. However, we still think that the plaintiff burden to prove that adverse actions were actually linked to protected activity is a heavy one.
- Third, the EEO community will be monitoring the follow up cases to *Dukes*. It will be interesting to see if geographical allegations have more success than the nationwide allegation, which many oversimplified as "too big to succeed."
- Fourth, the Obama administration continues to view the gender wage gap/pay equity as a major EEO priority. Although the Ledbetter Fair Pay Act was passed early in president Obama's first administration, the Paycheck Fairness Act stalled and enforcement activity has appeared to stay flat. We will certainly be curious to see if new legislation or the creation of a pay equity survey happens in the next few years.
- Fifth, although the ADAAA makes it easier to prove disability within the meaning of the ADA, other factors still make it difficult for plaintiffs to prevail. This is illustrated in *Toyota v. Williams*, where the plaintiff could, after the ADAAA, prove that her impairments substantially limit major life activities (i.e., manual tasks). However, there were still essential job tasks Williams could not perform even with accommodations, thus making hers a losing case anyway.
- Sixth, affirmative action should continue to dominate the headlines. The Supreme Court will rule on *Fisher* sometime this summer, and there is guaranteed to be some controversy (whether it is warranted or not). In addition, OFCCP is proposing to substantially change affirmative action and equal employment opportunity (AA/EEO) requirements for protected veterans and individuals with disabilities, in order to make them more consistent with the AA/EEO requirements of Executive Order 11246 related to gender, race, and ethnicity. These changes would have major implications for federal contractors.

We close with one last thought. From experience, we know that some of the most interesting EEO stories never make it into a judge's formal ruling. That doesn't mean they aren't worth sharing with the I-O community (if they can be). This is how Eric joined the front, and recent guest columns from Jim Outtz (sharing an under-the-radar settlement) and Kayo Sady (describing a confusing ruling that hadn't been summarized anywhere else) are great examples. We think that more guest columns sharing stories worth sharing would be of value to readers of this column. So if you have an EEO/AA story that warrants telling, let us know. We would be happy to discuss your ideas and see if there would be fit with the column. We hope that you have enjoyed the column over the last 13 years. We have certainly enjoyed writing it and will continue to do so as *TIP* moves into cyberspace.

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PRACTICE PERSPECTIVES



Trends in SIOP Membership, Graduate Education and Member Satisfaction

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In honor of the long history of *TIP* and the impending transition to an electronic version of *TIP*, we have outlined some historical trends in SIOP membership, graduate education, and member satisfaction as they have been reported in *TIP* over the last 25+ years. We searched 25 years of past *TIP* issues and also collected some historical data from the SIOP Administrative office.

After our *TIP* search we focused on four content areas:

- SIOP membership
- Primary work setting for SIOP members
- Graduate programs and degrees
- Member satisfaction with SIOP

In each area we looked for variables that we could compare across time. This was more challenging than we expected because in most cases there has not been a systematic collection of data on same variables over time. We made an effort to match variables where possible that were reasonably similar. In some cases we found that same variables reported in different *TIP* articles, while in other cases we used cross sectional data (such as data from the 2011 membership database sorted by members who graduated in different decades). We also appreciate the help of Dave Nershi and the SIOP Administrative Office staff for supplying useful historical data.

SIOP Membership Over Time

While there has been interest in SIOP about the number of SIOP members, we found that this information was not typically shared with the membership. Table 1 reports the number of full members and Fellows over the last 32 years.

Full Members and Fellows

There has been a steady increase in membership numbers since the 1970s, although during any one year there are predictable ups and downs in mem-

Table 1
Full Members and Fellows, and Percentage of Fellows in SIOP Membership (1970–2012)

	Full members and Fellows by year										
Year	1970	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012
Fellows	243	238	236	234	240	209	231	201	254	252	263
Full Members	609	711	948	1436	1936	2017	2096	2686	2847	2815	2792
Members + Fellows	852	949	1184	1670	2176	2226	2327	2887	3101	3067	3055
% Fellows	29%	25%	20%	14%	11%	9%	10%	7%	8%	8%	9%

[1] Full member and Fellow data were provided by the SIOP Administrative office.

bership. Membership renewals are typically due in June and the membership drops somewhat in the months following June but then typically swings up each winter as members renew their membership in advance of the SIOP conference (where SIOP offers members a reduced conference registration rate).

In the 1970s, full members increased by 56% and in the 1980s by 104%. But then in the 1990s there was only an 8% increase. This slower growth is worth noting, particularly because there was an economic boom in the U.S. in the 1990s. In the 2000s there was a 36% increase in full members. But in the last few years there seems to be slight decreases in the number of full members. Is this an early trend for the decade? Is there any concern among the SIOP leadership, and what steps are being taken to address this trend?

What is striking is that the number of Fellows in SIOP in 2012 is practically the same as the number in 1970, despite the growth in full members (by 358%) over the same time period. The percentage of Fellows in the membership has fallen from 29% to 9% over 32 years. Why has this occurred? In 1970 (before the boom in I-O careers) the majority of members were academics or researchers, but since the 1980s there has been huge growth in members who are working in consulting firms or business organizations. So both the overall membership and practitioner members have increased, but the number of Fellows has not kept up with those changes.

At the same time, the SIOP Executive Board during that period was (and still is) dominated by academics/researchers (75–100% of the Executive Board; Silzer & Parson, 2012b), and there has been regular objections to opening the Fellowship to practitioners who were not publishing research. For many years there has been resistance to modifying the fellowship requirements to make them suitable for practitioners. Historically 80–100% of Fellows have been academics/researchers. Several attempts by well-known practitioners have been made to adapt the requirements to I-O practice, however not much has changed in reality. In 2011–2012 the overwhelming majority (83%) of the new Fellows were academics/researchers (Silzer & Parson, 2012a). The shrinking percentage of members who are Fellows and the limited number of practitioners given Fellow designation suggest that there is an ongoing resistance to change by members who are in decision making positions.

Associates, International Affiliates, and Student Affiliates

We also looked at other membership categories over the last 12 years (which is the only data we could find on these groups). These member data are presented in Table 2.

Table 2
Associates, International Affiliates, and Student Affiliates SIOP Membership (2000–2012)

	Associates, International Affiliates, and Student Affiliates by year				
Year	2000	2005	2010	2011	2012
Associates	317	417	602	663	693
International Affiliates	175	190	363	376	388
Student Affiliates	1703	2664	3826	4144	3949

[1] Membership data were provided by the SIOP Administrative office.

Over the last 12 years there has been significant growth in Associates (218%), International Affiliates (221%), and Student Affiliates (231%). (It should be noted that these groups are not full members of SIOP nor do they have voting rights.)

What is striking is that all three of these groups have grown much faster than full members (33% growth) and Fellows (13% growth) over the same period. In fact Student Affiliates in 2012 (n = 3949) now outnumber full members and Fellows (n = 3055) by 29%. It raises the question of whether SIOP may have overfocused on increasing these groups to the detriment of growing the full membership and Fellows. The original idea was to involve students in SIOP so they would become full members but the data suggest that may not be working.

Primary Work Setting of Members

There have been many discussions in SIOP about how the employment setting of I-O psychologists has changed in the last 20 years. There has been a general agreement that the career opportunities for members in consulting and in business organizations has significantly expanded. Table 3 presents data from four studies on member work setting that were published in *TIP* and includes members with all degrees.

The 1985 data are based on the 1985 SIOP membership database but only 63% of members answered the employment setting questions in their membership information. The 1996 and 2006 data are based on surveys mailed to members with return rates of 32% and 33% respectively. It is hard to determine which work settings may be under- or overrepresented in this data. So the data from these three studies may not be representative of the full membership. The 2011 data are based on the whole 2011 membership database. All 3,201 full members and Fellows were categorized based on their membership information. As a result this study may be more representative of the full membership than the other studies.

Table 3
Primary Work Setting by Year for SIOP Members

	Members in primary work setting by year (Includes members with all degrees)			
Work setting	1985 (N = 1570)[1]	1996 (N = 647)[2]	2006 (N = 1881)[3]	2011 (N = 3201)[4]
Academic (psychology/ business dept)	560 (36%)	243 (38%)	712 (38%)	1386 (43%)
Business/industry	383 (24%)	114 (18%)	287 (15%)	480 (15%)
Government	105 7%	47 (7%)	154 (8%)	209 (7%) (practice=128, academic=6, gov't res=75)
Consulting/ independent practice/ research firm	No data	225 (35%)	444 (24%)	1057 (33%) (consulting firm = 437, independent practice = 533, research firm = 87)
Other[5]	522 33%	18 (3%)	284 (15%)	69 (2%)

[1] Howard, 1986. Based on 1985 SIOP membership database of 2,496 members, Fellows, and Associate members. Table 5 is based on 1,570 members in these categories who responded to the survey (a 63% response rate); some members did not respond to questions on employment status.
[2] Borman & Cox, 1996. Based on survey mailed to "about 2,000 SIOP members for whom we could obtain mailing labels"; received 647 usable surveys for a return rate of 32%. The specific membership categories included are unknown, but the "target was fellows and (full) members). However only 91.7% of respondents were identified as having a PhD, which "suggests some associates might have slipped in" to sample.
[3] Doherty, 2006. Based on 2006 survey of 5,701 members, Fellows, Associate members, International Affiliates, and Student Affiliates. Table 5 is based on 1,881 returned surveys for a 33% return rate.
[4] Silzer & Parson, 2011. Based on 2011 SIOP membership database of 3201 members and Fellows.
[5] "Other" category was defined differently in each study but generally covers members not categorized in an identified work setting or where work setting was unknown.

It should also be noted that the member categories that were included in each study were different. This accounts for some of the results in the 1996 data, which suggest a drop in the actual number of members in academic, business and government work settings from the 1985 study. The member groups included in each study were:

- 1985: full members, Fellows and Associates
- 1996: full members, Fellows, and some Associates
- 2006: full members, Fellows, Associates, International Affiliates, and Student Affiliates
- 2011: full members and Fellows only

The difference in samples may have the most pronounced effect on the 2006 data, which included all member and affiliate categories, including students.

The increase in consulting firms and independent practice as a primary work setting is the largest increase among the different work settings. This

matches our perception that consulting work opportunities significantly increased in the 1980s and 1990s. Members working in business organizations increased in actual numbers but not in their percentage of all SIOP members. There has been more growth in the members working in consulting settings than the members working in business organizations.

The data also suggest some stability in the percentage of members who work in academic settings (with slight increases), but the actual number of members in this work setting may have more than doubled in the last 25 years. (The noticeable decrease in actual academic members between the 1985 and 1996 studies is likely due to sampling error.) The increase reported in the 2011 study may primarily be the result of the significant and recent growth in academic positions located in business schools. The business school positions now represent 47.6% of the academic positions held by SIOP members (Silzer & Parson, 2011).

To further investigate work setting trends we sorted 2011 members by the decade that they received their graduate degree and by their current work setting. The results are presented in Table 4. The data only represent full members and Fellows in the 2011 database who hold I-O degrees. (It does not include retired members or retired Fellows).

Table 4
Employment Focus by Decade by I-O Psychology Graduate Degree (pre-1970 Through 2000–2009)

Employment focus of full member and Fellow by graduation decade (includes only members with I-O degrees)						
Primary employment focus	Pre-1970	1970–1979	1980–1989	1990–1999	2000–2009	Total
Academics	23	68	144	204	324	763
Researchers	2	7	13	34	71	127
Consultants (nonresearch firms)	22	73	128	189	246	658
In organizations	1	12	57	169	236	475
Total 2011 members with I-O degree	48	160	342	596	877	2023

[1] Silzer & Parson, 2012c. Based on 2011 SIOP membership database. Table reflects the current employment focus of 2011 full members and Fellows sorted by decade of their I-O psychology graduate degree.

That there are only 48 full members and Fellows who graduated in the pre-1970 period and who still are members suggests that quite a few of original members have retired or are no longer members. For the members who graduated in the 2000–2009 period, 37% (n = 324) are in academic positions, 27% (n = 236) are in organizational positions, and 28% (n = 246) are in consulting (nonresearch) positions. This suggests that 55 % of recent graduates are working in consulting firms or in organizations. The number of members (who graduated in the 2000–2009 period) in each work setting has at least doubled from the

number of members who graduated 1990–1999 period. This suggests that the field is attracting, training, and graduating ever larger numbers of professional I-O psychologists and that their career opportunities are continuing to expand.

Graduate Education and Degrees Over Time

Numerous SIOP members have written *TIP* articles related to the graduate programs in our field and the graduate degrees of SIOP members. Although the data base used in each study is different, we tried to find opportunities to compare results at different points in time.

Graduate Programs

We found five *TIP* articles over the last 25+ years that reported on graduate programs in our field for 6 different years. Table 5 presents these data.

Table 5
Changes in Number of Graduate Programs Over Time

	Graduate programs by year					
	Based on SIOP graduate program guide or SIOP website					Based on member self-report
Graduate program[6]	1986[1]	1995[2]	2004[1]	2006[3]	2012[4]	2011[5]
I-O PhD/ PsyD programs	40	48	52	59	74	125
OP PhD programs	4		13		8	6
Business school & other PhD/PsyD programs		29 (OB/HR)		47[3]	48[6] (39 in bus/mgmt depts)	103 (73 OB, 24 HR, 5 OD)

[1] Rogelberg & Gill, 2004. 1986 data are based on *Graduate Training Programs in Industrial-Organizational Psychology and Organizational Behavior* published by SIOP (1986). 2004 data are based on graduate training programs listed on the SIOP website (January 15, 2004).
[2] Rentsch, Lowenberg, Barnes-Farrell, & Menard, 1997. Data are based on survey of 175 graduate programs identified from previous editions of the SIOP guide to I-O graduate programs, journal articles describing graduate training in industrial psychology, and direct solicitation. Completed surveys were returned by 143 programs some of which were master's degree programs.
[3] Costanza & Kissamore, 2006. Data based on graduate programs listed on 2006 SIOP website. Specific degrees listed for business school and other programs were not identified but are likely to be similar to 2012 listings.
[4] Data based on graduate programs listed on 2012 SIOP website
[5] Silzer & Parson, 2011; 2012c. Data are based on 2011 SIOP membership data where graduate degree and graduate institution were self-reported by members.
[6] Programs listed in business or management departments: 10 OB, 12 OB/HR, 3 HR (2 PhD, 1 EdD), 3 HR/IR, 10 business/mgmt, 1 management & organizations. Related and interdisciplinary programs listed: 1 OD (PsyD), 1 org sciences, 1 consulting, 1 health psych, 2 business psych (1PhD, 1 PsyD), 1 applied, 1 ethical & creative leadership in various other departments.

The database used in various studies varies across studies. The data for the 1986, 2004, 2006 and 2012 studies were based on either the listing of graduate programs on the SIOP website or the programs listed in the *SIOP Guide to Graduate Programs*. The 1995 survey study started with an extensive list of 175 graduate programs (doctoral and master's programs) gathered from various sources

(*SIOP Guide*, journal articles discussing graduate training, and direct solicitations), and then a survey was sent out to them with responses from 143 programs. The 2011 data are self-report data listed in the 2011 SIOP membership database, and as a result are likely to be more exhaustive but are self-report data.

There has been a regular progression of I-O psychology doctoral programs over the 25 years (from 40 to 74), based on those listed by SIOP. However in the 2011 membership database we found that full members and Fellows reported receiving I-O doctoral degrees from 125 different I-O graduate programs. There are many graduate I-O programs and graduate institutions cited in the membership data that are based in the U.S. and other countries that are not listed in the SIOP I-O graduate program directory. We are all aware of the expansion of I-O graduate programs both in the US and abroad. But perhaps the self-reporting of information may have been affected by self-presentation effects. For example some members with a PhD in psychology may have declared on their membership form that I-O psychology was their graduate major. Either way a listing of 125 different I-O graduate programs still seems pretty impressive for a professional organization.

Graduate programs in OP (organizational psychology) have not expanded much over time. Although given recent debates over the name of our field and the rising popularity of OP as our professional name, these programs are likely to increase in the future. What has increased is the number of graduate programs in business schools that related to our field.

For the 2011 data, full members and Fellows self-report 103 different doctoral programs in business schools. In the last 10 years there has been an expansion of OB programs in business schools (often hiring I-O psychologists as professors), and SIOP has made an effort to recruit business school faculty as members.

Graduate Institutions

In our recent study of the 2011 membership (Silzer & Parson, 2012c), we identified the different academic institutions that awarded doctorate degrees to SIOP members. We sorted members into the decade that they received their degree. The results are reported in Table 6.

Table 6
Changes in Institutions Awarding Doctoral Degrees (Pre-1970s to 2000–2009)

Institutions (based on 2011 SIOP member database)	Number of institutions by decade of graduation[1]				
	Pre-1970s	1970–1979	1980–1989	1990–1999	2000–2009
Institutions awarding I-O psychology doctoral degrees	27	42	74	78	102
Institutions awarding any doctoral degree	54	115	141	163	188
Number of members receiving doctoral degree by decade	89	362	573	842	1189

[1]Silzer & Parson, 2012c. Data based on institutions listed by SIOP full members and Fellows in 2011 SIOP membership database, sorted by decade of graduation

Table 6 shows the number of institutions awarding doctoral degrees (I-O degrees and all degrees) by decade to 2011 full members and Fellows. Data show a regular expansion in both categories. The 2011 SIOP members who received their doctoral degrees in 2000–2009 were granted their degrees from 188 different academic institutions. This is a surprisingly large number of institutions and suggests significant diversity of graduate education among our members.

In addition, the number of members receiving their degrees in each decade is noticeably increasing (58%, 47% and 41% increases from decade to decade over the last 4 decades respectively). But it should be noted that as the number of graduates increases each decade, the size of the increase over the previous decade is decreasing. One wonders with the recent decline in full members for 2011 and 2012 (see Table 1) whether this trend will continue, or are we at the beginning of a trend in falling SIOP membership?

Graduate Degree Major

Only two studies reported in *TIP* over the last 25 years reported on the major field of doctorate degree among SIOP majors (Howard, 1986; Silzer & Parson, 2011). Both studies are based on SIOP membership databases (1985 and 2011, respectively). The 1985 data includes full members, Fellows and Associates, while the 2011 study only includes full members and Fellows. Those data are presented in Table 7.

The percentage of the SIOP membership with I-O psychology degrees has increased by 15% from 1985 to 2011 (from 50% to 65%), while the actual number of members with an I-O degree has increased 80% (from 1147 to 2070 members). It is worth noting that even in 1985, a total of 1831 members (full members, Fellows and associates) report practicing in I-O psychology even though only 1147 held an I-O degree. This suggests that many members had moved away from their original major field of study to I-O psychology as their main area of practice (or at least they self-report that in their membership data).

Many other degree categories for SIOP members have decreased both in percentage of overall membership as well as the actual number of members holding each degree (e.g., clinical, counseling, education, engineering, psychometrics, and social). It is likely that some of these prior members may have left and found their professional homes elsewhere (such as in APA Division 13, Consulting Psychology).

It is striking that the number of full members and Fellows with I-O and OP degrees now represent 68% (or 2/3) of the SIOP full members and Fellows. While members with other psychology degrees have significantly declined over the last 25 years, the number of members with OB degrees has clearly increased and now represents 7% of the membership. Members with OP degrees now represent 3% of the membership. The decrease in members with degrees in other areas is a concern and suggests declining opportunities for SIOP members to stay in touch with other related fields of psychology.

Based on our 2011 data, we looked at the trends in I-O, OB, and OP degrees across 5 decades (based on the 2011 membership). The data are

Table 7

Major Field of Graduate Degree and Practice (1985, 2011)

Major Field of Graduate Degree and Practice[1] (Number of members and % of member group)				
1985[2]			2011[3]	
Major field	Degree	Practice	Major field	Degree
I-O	1147 (50%)	1831 (78%)	I-O	2070 (65%)
			Organizational psych	107 (3%)
Clinical	140 (6%)	73 (3%)	Clinical	64 (2%)
Counseling	138 (6%)	44 (2%)	Counseling	56 (2%)
Education/School	94 (4%)	6 (0.3%)	Education/Ed.D admin	32 (1%)
Engineering	11 (.5%)	24 (1%)	Engineering	2 (.1%)
Experimental/ consult/phys	151 (7%)	16 (.7%)	Experimental	29 (1%)
			Consulting	2 (.1%)
			Biopsych, phys, Comp[4]	4 (.1%)
General	99 (4%)	14 (.6%)	General	100 (3%)
Psychometrics	55 (2%)	35 (2%)	Measurement/psychometrics	24 (1%)
			Quantitative	13 (.4%)
Social	205 (9%)	82 (4%)	Social	136 (4%)
Other	71 (3%)	83 (4%)	Other	30 (1%)
			Organizational behavior	212 (7%)
			Organizational development	8 (.3%)
Total	2282	2349		3201

[1] Direct comparisons were made where possible across 1985 and 2011 datasets, however some comparison categories had to be approximated based on similar categories.

[2] Howard, 1986. Data are based on 1985 SIOP membership database and includes full members, Fellows, and associate members. Data are member self-report data.

[3] Silzer & Parson, 2012a. Data are based on 2011 SIOP membership database and includes only full members and Fellows (but not associate members or members listed as retired).

[4] Biopsych" is biological psychology; "phys" is physiological psychology; "comp" is comparative psychology

presented in Table 8. (Note: Data in Table 7 include degrees earned in 2010 and 2011, while the data in Table 8 only include degrees earned only up to 2009.)

Table 8
Changes in Graduate Degree Majors Across Decades

Graduate major[1]	Pre-1970	1970–1979	1980–1989	1990–1999	2000–2009	Total
I-O psychology	48	160	342	596	877	2023
Organizational behavior	2	13	29	53	109	206
Organizational psychology	2	10	14	25	50	101

[1]Silzer & Parson, 2012c. Data are based on 2011 SIOP membership database and includes full members and Fellows. Data do include members with degrees in other fields (other than I-O, OB and OP), members who did not list their majors or their graduation dates, or members who graduated in 2010 or 2011.

The number of members receiving degrees in each graduate major has increased in each decade. The number of OB degrees is about twice that for OP degrees for SIOP members. All three majors grew significantly among members from the 1990s to the 2000s: OP degrees by 100%, I-O degrees by 147%, and OB degrees by 205%. Adding 877 members with I-O doctorate degrees in the 2000s is a substantial increase.

Satisfaction With SIOP

Over the years SIOP has periodically surveyed members about their satisfaction with SIOP on various issues. The results of several of these member surveys were reported in *TIP* articles and are presented in Table 9. It should be noted that different member groups were included in different surveys. The 2000 and 2008 surveys reported on satisfaction responses for just full members and Fellows, whereas the results for other surveys include more member categories.

One concern is that several surveys (Doherty, 2006; Waclawski & Church, 2000; Waclawski, Church, & Berr, 2002) also included Student Affiliates. Waclawski and Church (2000) found that Student Affiliates consistently gave higher satisfaction ratings than members did, so the 2002 and 2006 data that include students along with other member groups may not accurately represent the true satisfaction level of just full members and Fellows. All datasets (except 2008; Silzer, Cober, Erickson, & Robinson, 2008a,b) also include Associates. Given that there now are more student members than full members in SIOP, it would seem that students are likely to significantly distort any satisfaction ratings with a positive bias. In the future member satisfaction surveys should at a minimum break out ratings for full members and Fellows separately from students because it is the full members and Fellows who are the core members of SIOP.

The satisfaction ratings across the 2000 and 2002 surveys are fairly stable. The member groups taken as a whole (full members, Fellows, and Associates) seem satisfied with SIOP as a professional organization and with the value of SIOP membership. However across three surveys (2000, 2002, 2006) the whole member group is consistently much less satisfied with the SIOP efforts in "promoting I-O to business" and "promoting I-O to other areas of psychology." That trend is clear.

Table 9
Member Satisfaction With SIOP

	SIOP member satisfaction ratings						
	2000[1]		2002[2]	2006[3]	2008[4]		
Member category	Members, Fellows, Associates	Members, Fellows, Associates, Students	Members, Fellows, Associates, Int'l Affil., Students	Members, Fellows, Associates, Int'l Affil., Students	Members, Fellows (70–100% time in practice activities)	Members, Fellows, (1–20% time in practice activities)	Members, Fellows, (0% time in practice activities)
Sample size	282	404	1891	1881	494	176	82
SIOP as professional organization	4.21	4.25 (students-4.39)	4.25	86% satisfied			
Value of SIOP membership	4.22	4.27 (students-4.42)		86% satisfied			
Promoting I-O to business	3.13	3.22	3.14	36% satisfied			
Promoting I-O to other areas of psychology	3.50	3.53	3.37	47% satisfied			
Providing sufficient support to practitioners [5]				58% satisfied	37% satisfied	47% satisfied	54% satisfied
Providing clear vision of I-O psychology and practice					26% satisfied	26% satisfied	52% satisfied
Understanding practice issues					27% satisfied	60% satisfied	66% satisfied
Recognition of contributions of practitioners					31% satisfied	52% satisfied	61% satisfied

[1] Waclawski & Church 2000. "Surveys mailed to stratified random sample of 1542" of SIOP members; had a 26% response rate; used five-point scale (1 = *very dissatisfied*, 2 = *somewhat dissatisfied*, 3 = *neither satisfied nor dissatisfied*, 4 = *somewhat satisfied*, 5 = *very satisfied*, 6 = *don't know*).
[2] Waclawski, Church, & Berr, 2002. Survey mailed to all 4860 members and affiliates; had a 39% response rate; used five-point rating scale (1 = *very satisfied*, 2 = *somewhat satisfied*, 3 = *neither satisfied nor dissatisfied*, 4 = *somewhat dissatisfied*, 5 = *very dissatisfied*, 6 = *don't know*).
[3] Doherty, 2006. Survey mailed to all 5701 members and affiliates; 33% response rate; reported data using three-point scale (% satisfied, % neutral, % dissatisfied).
[4] Silzer, Cober, Erickson, & Robinson, 2008. Survey mailed to all members, Fellows, and associates, had a 35% response rate, reported data using three point scale (% satisfied, % neutral, % dissatisfied). Members self-reported the % of time they spent in practice activities. The data presented in this table are only for full members and Fellows.
[5] For 2008. data the survey question was SIOP efforts in advancing and promoting I-O practice)

Regarding SIOP's support for I-O practitioners and I-O practice, both the 2006 and 2008 surveys report lower levels of satisfaction among member groups. When breaking the 2008 satisfaction ratings down by member groups who spend different percentages of their time in practice activities, we find significant differences in satisfaction ratings. Full members and Fellows who spend 70–100% of their time in practice activities are significantly less satisfied with SIOP than other groups in "providing support to practitioners," "providing a clear vision of I-O psychology and practice," "understanding practice issues," and "recognizing the contributions of practitioners". In fact, full members and Fellows who spend a large percentage of their time in practice activities report high levels of dissatisfaction (35–40%) with SIOP's support for I-O practice and practitioners in a number of areas (Silzer et. al 2008a; 2008b). Similarly, practitioners working in applied settings were noticeably more dissatisfied with SIOP support than members working in academic settings (Silzer et al, 2008b).

Full members and Fellows who spend 0% of their time on practice activities report noticeably higher levels of satisfaction in these areas than other practitioner groups but still are only in the 50–60% satisfaction range.

This data clearly suggest that SIOP member satisfaction surveys that include many member categories (such as associates and students) may mask the true satisfaction levels of full members and Fellows. In addition, member surveys that do not distinguish members who work in practice settings for those in academic and research settings may mask the underlying dissatisfaction that I-O practitioners have for SIOP's support of I-O practice.

Future of I-O

We scanned back issues of *TIP* for articles related to the future of I-O psychology and were only able to find a few. Church (1998) presented four sets of comments from six SIOP members on their views of the future of I-O psychology. Many of those comments focused on organizational issues that we will face in the future. Church noted:

> Clearly, based on these comments, although the twenty-first century for organizations and I-O psychologists may be fraught with complex and changing issues regarding the nature of jobs and careers, the types and methods of training that will be needed, the role of technology and its affect on communication and information sharing, diversity in individual skills and cultural orientation in a global business environment, shifting organizational structures and forms, and applicability of traditional selection and appraisal methods, all the individuals commenting here were optimistic about the future of I-O as a field and the challenges we are going to have to face.

Church concludes:

> [I]t is unlikely that the core nature of I-O psychology will evolve at a rate anywhere near a pace to keep up with the changes taking place in organizations. As I see it, there are really only three choices: We could become (a) insular anachronistic noodlers, (b) moderately useful technocrats, or (c) fully integral professionals.

Silzer and Cober (2010, 2011a, 2011b), surveyed 50 leading I-O practitioners and asked them "What are the three most likely future directions for I-O psychology practice?" They cited these primary insights from the responses:

- Ongoing concern about the integration versus divergence of I-O research and I-O practice
- Potential irrelevance and splintering of the field
- Perceived threat and competition to our field from professionals in other fields
- Possible integration and incorporation into other fields
- Migration to business schools
- Increasing focus on individual psychology and talent management
- Diverging professional interests between a focus on individuals/talent and a focus on organizations
- Need to be more relevant and useful to business clients and organizations
- Increasing impact of technology, globalization, and economic conditions
- Opportunity to leverage a data-driven and research-based approach for the benefit of individuals and organizations
- Potential changes to I-O roles and careers
- Increasing demand for demonstrating the ROI of our contributions

In sum, there are mixed views of the future of I-O psychology and practice. Both articles suggest some optimism for the future but also note the possibility that I-O psychology will not keep pace with ongoing changes in organizations or in the marketplace.

Conclusions

In reviewing these data we found interesting and, in some cases, surprising, trends. The key trends are:

- There has been a steady increase in the number of full members over the last 40 years, but there are declines in the last 2 years
- The number of Fellows in SIOP has remained almost unchanged for the last 40 years despite a 538% increase in full membership. The percentage of Fellows in the full membership has dropped from 29% to 9%.
- The number of Student Affiliates in SIOP has more than doubled in the last 10 years and now is larger than the number of full members in 2012.
- The number of members working in each of the primary work settings has significantly increased over the years, particularly in consulting

firms. This expands the career opportunities for I-O psychologists. Academic positions have also increased, primarily as a result of the expansion of positions in business schools, which now represent 48% of the academic positions held by SIOP members.

- Of the recent graduates (graduating 2000–2009) who are SIOP members, 55% hold positions in consulting firms or in organizations.
- There has been a steady increase in the number of I-O doctoral programs listed by SIOP (74 programs in 2012), while 2,011 members identify 125 different I-O doctoral programs. There has also been a noticeable increase in related programs based in business schools/management departments (39 programs in 2012), while 2011 members identify 103 such programs.
- In 2011, full members with I-O and OP degrees now represent 68% of the membership, up from 50% in 1985. At the same time, the number of members who hold degrees in other areas of psychology has significantly decreased over the same period for most majors (e.g. clinical, counseling, social, etc.). The number of members with OB and OP doctoral degrees continues to increase.
- The level of member satisfaction with SIOP varies considerably based on member category and percentage of time a member spends on practice activities. Students and members in academic positions report higher levels of satisfaction, while members spending 70% or more of their time on practice activities or who work in applied settings report higher levels of dissatisfaction with SIOP.
- *TIP* articles from 1998 and 2010 on the future of our field suggest that there is some optimism for the future but also express concern that I-O psychology will not keep pace with ongoing changes in organizations or in the marketplace.

Some of these trends raise concerns about how SIOP is evolving. Although there are encouraging growth trends, there are other trends that may be early warnings for challenges ahead for our field. Clearly the SIOP leadership should not only be aware of these trends, but should take action where trends may not be in the best interest of the long-term sustainability of SIOP and our profession.

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SIOP Task Force Begins Dialogue With Equal Employment Opportunity Commission (EEOC)

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As many SIOP members know, last year at the SIOP conference in San Diego, Jacqueline Berrien, Chair of the Equal Employment Opportunity Commission (EEOC), gave the keynote address at the Theme Track on Workplace Discrimination calling for a clear and open channel of communication between SIOP and EEOC. She noted that although the goals of the two organizations are not identical, they travel on parallel tracks toward effective and fair employment practices. She further noted that the social sciences have influenced, and continue to influence, equal employment law and its enforcement. Her involvement generated excitement among SIOP members, as did her message of collaboration and partnership. Also at the conference, **Doug Reynolds, Adrienne Colella,** and **Tammy Allen** of the SIOP Executive Board met with Patrick Patterson, a longtime civil rights attorney serving as senior counsel to the Chair, and Rich Tonowski, chief psychologist at EEOC and a SIOP member. During that meeting the group discussed how SIOP and EEOC can continue a dialogue and initiate collaboration on issues of relevance to both organizations. Since the conference, this dialogue has continued and SIOP has identified an opportunity to share findings and practices from our field with stakeholders in the federal EEO community. The idea was to have SIOP summarize and present what the profession considers to be contemporary practice guidance on some specific employee selection procedure issues, including test use, monitoring, and validation research.

The Executive Board decided to form a task force to begin dialogue with EEOC via a discussion around findings and practices from our field that are of mutual interest to SIOP and EEOC. It is named the Task Force on Contemporary Selection Practice Recommendations to EEOC and is grounded in both the Professional Practice Committee (chaired by Tracy Kantrowitz) and the Scientific Affairs Committee (chaired by **Fred Oswald**). Task Force

members are Eric Dunleavy (Chair), **Art Gutman, Jeff Johnson, Kathleen Kappy Lundquist, Scott Morris, Kevin Murphy, Jim Outtz, Paul Sackett,** and **Nancy Tippins.** In addition, **John Weiner, Dennis Doverspike,** and **Karina Hui-Walowitz** will be supporting the task force as members of the Professional Practice Committee. Patrick Patterson and Rich Tonowski (who is also a member of the SIOP Professional Practice Committee) have been named EEOC liaisons to the task force and represent the first level of communication between SIOP and EEOC.

We thought that SIOP members would be interested to hear about the task force, understand relevant historical context, and be aware of what the task force will be doing in the immediate future. We also thought it would be useful to summarize who EEOC is, what the agency does, and what topics within the context of personnel selection the agency might be interested in knowing more about. This article attempts to accomplish those goals.

The EEOC at a Glance

The Equal Employment Opportunity Commission (EEOC) is a federal agency headed by a five-member bipartisan commission with a staff comprising investigators, attorneys, and a few I-O psychologists. It enforces federal law relating to employment discrimination based on race, sex, color, nationality, religion, age, disability, and genetic information. For some of these protected classes, the legal standard for personnel selection practices is that they are "job related" and used in ways "consistent with business necessity." During the 1960s, EEOC issued several iterations of guidance and enforcement policy relating these legal standards to selection test validation. This guidance culminated in the *Uniform Guidelines on Employment Selection Procedures (UGESP)*, "uniform" in that it was endorsed by all the federal agencies at the time having equal employment opportunity enforcement responsibilities. *UGESP* was promulgated in 1978 and is still in force today.

Given what EEOC does, it is no surprise that the SIOP Executive Board views this as an interesting and important dialogue. EEOC is tasked with the enormous responsibility of ensuring that employees and applicants are protected from discrimination in employment. Federal agencies like EEOC[1] are in part tasked with the burden of blending science and law to define and measure unlawful discrimination. SIOP has obvious expertise in areas around measurement, evaluation and use of employee selection procedures. More broadly, the field of I-O psychology continues to gain prominence in the public eye via contributions to business, science, and academia. The SIOP Executive Board believes that SIOP can assist the broader EEO community by informing the EEOC on the contemporary science and practice of employee selection, and is pleased that the agency is genuinely interested in our perspective. A long-term dialogue between EEOC and SIOP would be beneficial to both groups.

[1] This burden is shared with the Executive Branch, Congress and the Courts.

Some Mutual Selection Topics of Interest

Based on some initial conversations, the topics of mutual interest are (a) the measurement of adverse impact and (b) validity transportability as discussed below. Those of you familiar with recent EEO enforcement and contemporary case law are aware of the controversies surrounding adverse impact measurement. The *UGESP* are still the federal guidance given the most deference in disparate impact cases; it endorses the 4/5 rule as the measure of adverse impact, and this measure has been criticized for a variety of reasons. On the other hand, traditional statistical significance tests are the most commonly used measure of adverse impact. The U.S. Supreme Court has supported statistical significance but phrased as standard deviations on a normal probability distribution. Some court rulings and scholarly writings have given preference to other practical significance considerations related to magnitude and scope of the disparity. These methodological variations may lead to different conclusions regarding whether a disparity is meaningful, and as such decision makers may have a difficult time combining relevant information in order to come to a conclusion. This is a topic where some contemporary guidance on the pros and cons of measuring adverse impact via different strategies may be useful to the EEOC, as well as to other stakeholders.

As mentioned earlier, *UGESP* are the most commonly used standard for disparate impact cases. Those *Guidelines* were written in 1978, when local approaches to validation research were still the norm for many practitioners. However, since then scholarly research and professional practice have identified alternative validation strategies that transport research evidence from other sources outside of the situation where validation research is needed locally. The option of transporting evidence is particularly useful in situations where local validation research is not feasible because of a variety of practical constraints. Yet these approaches vary in scope, substance, and specificity, and as such it would be valuable for contemporary guidance to establish the usefulness and appropriateness of each. For example, *UGESP* define a narrow transportability where criterion validity evidence from another source is linked to the situation of interest via formal job analysis research conducted for the borrowed source and for the local context to which the validation evidence is being transported. More recent professional practice has endorsed the transportation of other forms of validity evidence, including (a) content-oriented approaches; (b) synthetic validation, which is the process of inferring validity from basic job components, a consideration of validity measures predicting those components, and the synthesis of component validity into an aggregate; and (c) the application of meta-analytic data to support test validity. As such, this is another topic where some contemporary guidance on the appropriateness of particular validation strategies in certain situations may be useful to the EEOC.

Where We Are Now

By the time you read this article we hope that the task force is off and running. An initial kickoff call was scheduled for the first week of February. Of course, that didn't give us much time to make major progress before the SIOP conference in April, but we expect that the structure, process, project plan, timeline, and expected deliverables will be ironed out by about that time. The EEOC may be willing to meet for the first time with the task force about our input as early as this spring. As part of this process it is reasonable to expect the following (although the specifics were to be decided at the time this article was written):

- An evaluation of available literature and practice guidance on the topics described above, as well as a consideration of the extent to which there is consensus among experts in the field on these matters;
- SIOP sharing results and recommendations with membership via the appropriate outlets (e.g., webinars, a SIOP white paper).
- EEOC sharing these recommendations with stakeholders via the appropriate outlets (e.g., an EEOC fact sheet, the incorporation of science and practice issues in EEOC's compliance training for employers).
- Continued identification of high priority and mutually interesting issues that warrant contemporary science and practice recommendations.

SIOP Conference Session on the Task Force

If you are interested in more information on the task force we suggest that you attend a special event at the SIOP conference this year in Houston. **Joan Brannick** will be moderating a panel as part of the Executive Committee block that will focus on this initiative. Doug Reynolds, Patrick Patterson, Rich Tonowski, and Eric Dunleavy will be panelists, and it wouldn't be a surprise to see some task force members participating from the audience. The session will focus on a more detailed description of the task force, clarification on what the task force is and what it is not, and a general update regarding what the task force has accomplished so far and what the project plan and timeline looks like going forward. This session will take place Friday, April 12 at 3:30 PM in Grand G. We hope to see you there.

Professional Practice Committee Updates

Including the task force described above by Eric Dunleavy and Rich Tonowski, the Professional Practice Committee is currently engaged in several initiatives that span internally focused career/professional development, the visibility of I-O psychology, and externally focused projects with policy implications. I wanted to highlight a couple of additional initiatives here.

The miniwebinar series, a joint initiative between the Professional Practice and Visibility committees, is now live! The webinar concept was conceived after the most recent practitioner needs survey, in which practitioners were asked about potential development activities SIOP could sponsor. Prac-

titioners responded very favorably to items such as "provide more online resources," "summarize the state of practice and science on specific practice topics (reports, summaries, books, meetings, videos)," and "provide more continuing practice education resources." The webinar concept fit the bill in terms of providing online resources on timely topics that members could conveniently access anytime, anywhere on the SIOP website (currently under the Resources tab). The webinars are designed with a practitioner focus, but all members, including Student Affiliates, can certainly benefit. That is, topics are selected with clear educational and career development objectives that can directly benefit practitioners. We saw this as better meeting members' needs rather than scheduled webinars that may only be available to a portion of the membership given diversity in schedules and interests.

The first webinar, recorded by **Neta Moye**, discusses the emerging concept of learning agility, or the ability and willingness to learn from previous experience. Neta reviews the current research and practice surrounding learning agility. The second webinar is by **Jeff Jolton** and is on communicating to senior executives in business (the C-suite). Special thanks to Neta and Jeff for preparing and delivering fantastic webinars, and to Practice and Visibility committee members **Amy DuVernet** and **Carl Persing** for helping to deliver them to SIOP members. Check back soon on the SIOP website for additional miniwebinars.

The careers study of I-O psychologists has progressed through various stages of data collection to help inform draft career paths taken by professionals with advanced degrees in I-O psychology. Multiple companies and universities contributed to the first round of data collection by providing source materials (career paths, job descriptions, competency models, job analytic information) to give context on how I-O roles are currently mapped in private and public organizations and in consulting. This information provided background for the development of interview protocol. Interviews are underway with I-O psychologists employed in a wide variety of roles to better understand career progression, career decision points, and career self-management. The next major stage of data collection involves a large-scale survey of SIOP members, so be on the lookout for a survey that will directly inform the final products for the careers study. The subcommittee dedicated to this project, led by **Mike Trusty** along with **Alex Alonso, Gary Carter, Rich Cober,** Dennis Doverspike, Amy DuVernet, **Joy Oliver**, and a team of consultants from the Center for Organizational Research at the University of Akron, is excited to share the results of this study with members as it will provide long-needed career information for professionals in and/or considering the field and showcase the diversity of roles that can be pursued with a degree in I-O psychology.

As always, the Professional Practice Committee is interested in hearing from practitioners on issues and concerns that affect you, and ways that SIOP can serve as advocates. Please e-mail me (tracy.kantrowitz@shl.com) with ideas and recommendations for initiatives the committee should consider to advance our agenda of promoting and advancing the practice of I-O psychology.



The GI Bill, Psychology, and I-O Psychology

Kevin T. Mahoney
Louisiana Tech University

The Servicemen's Readjustment Act of 1944 (which quickly came known simply as the GI Bill) had a profound impact on American psychology. The GI Bill provided a litany of benefits to World War II veterans, including unemployment benefits ($20 a week for 52 weeks), low-cost mortgages, and cash payments for higher education or vocational training. The motivation for the GI Bill was manifold: World War I veterans had been promised benefits which they eventually had to march on Washington to achieve (the infamous Bonus March of 1932). Politicians sought to prevent returning veterans from receiving similar treatment. In addition, returning veterans would need jobs, and the prospect of unemployment loomed. Veterans who became full-time students gave the economy time to recover and assuaged fear of another depression (Humes, 2006).

The GI Bill had a transformative effect. Even though few had aspired to home ownership before the war, home ownership boomed as developments like the famous Levittown, which allowed veterans to buy cheap, no-money-down homes, cropped up across the country. More to the point, higher education grew dramatically through the GI Bill. Scores of veterans flooded the universities to take advantage of free education; most would not have considered college a possibility before the war. In 1947, half of college students were enrolled through the GI Bill and more than 8 million veterans would eventually use the education benefits of the GI Bill. (Humes, 2006). In fact, Mary Tenopyr, Division 14 Past President (1980–1981), noted the difficulty of finding a school to attend, given how jam-packed schools were with veterans. The GI Bill dramatically increased the number of Americans who participated in higher education, undergraduate education, and beyond. With more students, there were more psychology majors and more who would go on and become professionals in psychology.

The GI Bill and Clinical Psychology

Although distinctions between psychological specialties were less defined at this time, clinical psychology was most visibly impacted by the GI Bill. Clinical psychology had grown slowly but steadily in the early decades of the 20th century. This growth is reflected by the formation of the American Association for Applied Psychology in 1937, an organization devoted to the professionalization of applied psychology (Capshew, 1999). World War II revealed a shortage of clinical psychologists; the military frequently could not find enough personnel (Capshew, 1999). After the war, millions of returning soldiers needed help of some form to aid readjustment to civilian life. The funds provided by the GI Bill for

"educational, occupational and health assistance" (Baker, 2004), as well as those mandated through health legislation, went to the Veteran's Administration. The VA would be the primary destination for returning veterans seeking treatment.

At first, the VA tried to provide services for veterans through contracts with colleges and universities, but the American Psychological Association objected to this strategy, believing the services these institutions provided was poor quality care. At this time, services in counseling centers were provided by those with little training; in fact there were very few places that offered clinical psychology training (Baker & Pickren, 2007). The VA needed a better way to help veterans.

To address the problem, the VA established the Clinical Psychology Training Program, which provided graduate training beginning in the academic year 1946–1947 (Baker & Pickren, 2007). Early on, The VA asked the APA to develop a method for identifying appropriate graduate schools in psychology from which to recruit. This request is thought to have led to the development of the APA's accreditation program (Baker, 2004). The VA also required clinical psychologists to have a PhD to work in the Department of Medicine and Surgery at the Veteran's Administration. This was a precedent that led the APA to require a doctorate for clinical psychologists to practice. In terms of requirements for obtaining a PhD, the VA's program was based on the scientist–practitioner model of training in clinical psychology adopted by the APA at the 1949 Boulder Conference. Consistent with ideas long forwarded by David Shakow (Capshew, 1999), a PhD in clinical psychology required a 1-year internship where a student would be given practice experience in clinical psychology, on top of the traditionally required courses in experimental psychology (Baker & Pickren, 2007). Training would be a balance between science and practice.

Due both to the availability of jobs, and their desire to aid their fellow veterans, training in clinical psychology was very attractive to veterans. By 2005, 25,000 clinical and counseling psychologists had been trained at the VA (Baker & Pickren, 2007). Once trained, clinical psychologists went to work in professional practice (often back at the Veteran's Administration, which was the largest employer of psychologists in the country; Baker & Pickren, 2007). Psychologists were more likely to become practitioners than ever before.

The GI Bill and I-O Psychology

Accreditation standards, a groundswell in applied psychologists, and the scientist–practitioner model are all examples of the GI Bill's direct and indirect effect on I-O psychology. But how did the GI Bill change the life of individual I-O psychologists? One way to look at this is to read up on those who have held leadership positions as SIOP president (or Division 14 of the APA, before SIOP). This information is handy. Many of the past presidents have written autobiographies, and they are posted on siop.org (and those past presidents yet to write an autobiography will be pestered by the SIOP History committee until they do!). Two past presidents, Herbert Meyer (1917–2006) and **Edwin Fleishman** (b. 1927) wrote about the World War II GI Bill in their autobiographies.

Herbert Meyer (president, 1970–1971) learned about the field of industrial psychology as a flight instructor during World War II. After the war, he returned home to pursue graduate school on the GI Bill at the University of Michigan. Interestingly, he had intended to go there for a doctorate in physical education, until an interview with psychology department Chair Don Marquis led to a misunderstanding so that Meyer ended up pursuing a doctorate in psychology. Meyer would have a highly successful applied career with the Psychological Corporation and General Electric. He then entered academics to create the lauded graduate program at University of South Florida.

Edwin Fleishman (president, 1973–1974) became interested in psychology as a college senior (when he was a precocious 18-year old) and when he was in the Navy. As the war was ending, he worked as a demobilization counselor helping returning Navy personnel readjust to life as civilians. He soon headed to graduate school at the University of Maryland, where he supported himself as a chemistry lab instructor and with funds from the GI Bill. Fleishman would go to on to make a great number of contributions to the I-O field in areas such as leadership and human performance, with stops at Yale University, the Air Force, and George Mason University.

More recent forms of the GI Bill cover a smaller portion of higher education expenses, and many I-O psychologists have profited. Beneficiaries include occupational health psychology expert **James Campbell Quick** and the most recent Distinguished Scientific Contribution Award winner **Robert G. Lord** (R. Lord, personal communication, February 6, 2013). Meta-analysis guru John E. Hunter attended University of New Mexico through his father's GI Bill benefits.

The GI Bill has opened our field to many. What or where would so many talented psychologists have been without the GI Bill?

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Embedding Innovation in I-O Practitioner Work



Tom Giberson
Oakland University

Suzanne Miklos
OE Strategies

As the last print version of *TIP* is produced, we reflect on the miracle of web-based materials that many of us read on phones or tablets in airports, parks, and coffee shops. Our lives and work are increasingly mobile, and we as a society pay premium prices for this experience when the product itself could be purchased for much less; think coffee. We are surrounded by innovations that provide value to consumers and to the shareholders of the companies who create them. One study (Legrand & Weiss, 2011) finds that 80% of leaders they surveyed describe innovation as important to future success but less than 30% are satisfied with their current level of innovation.

We have decided to tackle the somewhat fuzzy issue of innovation in our column because it is about change and because it is on the radar for many of our client organizations. Whether I-O consultants are selecting employees, building culture, or developing leaders, innovation is high on the list of valued corporate outcomes. For our purposes we are considering innovation to be new processes, products, or technologies that both depart in a novel way from the past and improve outcomes for the customer and the organization (Eisenbess, Knippenberg & Boerner, 2008). Some innovation is a result of adapting practices from other industries into an organization, such as the continuous improvement movement into health care, and other innovations create a new state of the art. Practically speaking, it is applied creativity that achieves business value (Legrand & Weiss, 2011). We have chosen to examine several articles on leadership contribution to innovation and several on the role of team perspective in innovation. This set of articles won't make consultants subject matter experts on innovation but will keep us mindful of the intersection of our organizational and leadership consulting work with innovation strategies in our client organizations.

Eisenbess et al. (2008) conducted a study to examine the impact of transformational leadership on team innovation. Transformational leadership includes four factors: inspirational motivation, idealized influence, intellectual stimulation, and individualized consideration (Bass, 1985). Transformational leadership unlike transactional leadership is about challenging the current state and moving towards a better future state. The current research examined to role of transformational leadership on a team-level variable,

which was team support for innovation and incorporated an examination of team climate for excellence into the research hypothesizing that it would have a moderating effect on team innovation. The sample included 33 intact R&D work teams who were rated on quality and quantity of innovation. The results supported that transformational leadership created stronger support for innovation within the work team, which was subsequently related to team innovation. The effect of transformational leadership on team innovation only occurred in a climate for excellence. In this study, the team dynamic had a substantial impact on the leader's influence over team innovation.

A second article (Williams, Parker & Turner, 2010) considers transformational leadership and team proactive performance. They found support for team dynamics in conjunction with leader impact on the degree of self-management and team proactive behavior. Although innovation per se is not the focus on this article, teams who focus on action, improvement, and future-directed behavior are described as proactive teams. Transformational leadership was found to have a direct impact on team self management and an indirect relationship on proactive team behavior. The authors also measured the average proactive personality of the team, finding that the impact of leadership is stronger when the team proactive personality is higher. Their finding comes with the caveat that diversity on proactive personality has a negative effect, such that a moderately proactive personality team would perform better than one that has members with a high proactive personality in combination with members who are low on the variable. A uniformly highly proactive set of team members would most benefit from the influence of a transformational leader

Zhang and Bartol (2010) examined the role of empowering leadership in creative process engagement and the creativity of individual workers in a Chinese IT company. Creativity is a component of innovation and typically defined as generating novel and useful ideas. Their measure of empowering leadership included enhancing meaningfulness of work, participation in decision making, expressing confidence in high performance, and providing autonomy from bureaucratic constraints. Empowering leadership was found to be related to psychological empowerment of employees. In addition, the supervisor encouraging creativity strengthened the relationship between psychological empowerment and creative process engagement, which then leads to increased creativity as rated by supervisors. Notably, the relationship between empowering leadership and psychological empowerment is enhanced by a higher level of intrinsic motivation in the employee. This article again reinforces the nature of the contribution of leadership and the relevance of individual and team characteristics.

We also reviewed several articles on the topic of perspective taking and creativity. The first deals with the relationship between intrinsic motivation and creativity (Grant & Berry, 2011). Previous work on the subject of intrinsic motivation (motivation to engage in something out of interest and satis-

faction, rather than because we "have to" [cf., Amabile, 1996]) and creativity (novelty, originality of ideas) has demonstrated a direct effect of intrinsic motivation and creativity. However, as the authors note, the relationship has been demonstrated primarily in terms of artistic and purely creative endeavors wherein originality and novelty are valued in and of themselves. Originality and novelty are interesting but not particularly helpful in the context of solving organizational/business issues, which also require practicality and usefulness (Grant & Berry, 2011). In this work, the authors build upon the intrinsic motivation–creativity literature, as well as findings that suggest perspective taking increases the usefulness of ideas in organizational settings (Mohrman, Gibson, & Mohrman Jr., 2001). Grant and Berry examined a mediated moderator model to assess whether prosocial motivation and perspective taking affected the impact of intrinsic motivation on creativity. When an individual adopts another's viewpoint to understand their unique viewpoint—such as their values or preferences—they are engaging in perspective taking (Parker & Axtell, 2001). Or as Harper Lee's (1962) Atticus described it to Scout in *To Kill a Mockingbird*, "You never really understand a person until you consider things from his point of view…until you climb into his skin and walk around in it." Grant and Berry's results suggest that indeed, prosocial motivation influenced perspective taking, which in turn influenced creativity. The authors suggest that managers who are interested in enhancing both the creativity and usefulness of solutions create not only conditions for intrinsic motivation (e.g., interesting tasks) but also conditions for perspective taking with customers, suppliers, and other employees. In our minds, perspective taking likely relies on good active listening skills, which are "trainable" skills; such skill development might not only encourage strong relationships but also better, more creative problem solving.

A second article cites the often-cited assumption that diversity in teams/groups increases creativity as the inspiration for their work (Hoever, Knippenberg, van Ginkel, & Barkema, 2012). Diversity of perspectives on an issue, such as the best way to accomplish a task or goal, provides a useful resource to teams as they go about problem solving and decision making. However, empirical work on the subject has found significant but small effects of diversity on creativity (Hulsheger, Anderson, & Salgado, 2009), suggesting that there could be something more to this relationship. The authors found that, indeed, perspective taking did moderate the relationship between diversity and creativity. Further, the authors found that perspective taking did not increase creativity within homogenous groups. Thus, managers could improve the creative potential of diverse groups by training and/or encouraging perspective taking, and increase the potential creativity of homogenous groups by increasing the diversity of ideas introduced along with perspective taking.

These articles remind us as practitioners to focus on the individual, the team, and the leader behaviors when working to cultivate future oriented and

innovative thinking. For example while engaging in a leadership transformation project intended to support skills needed in a significantly different business model, we will collaborate with our colleagues to consider how we might create a stronger context for leaders who are responsible for innovation or even the adaption of innovative practices. We may consider additional internal research to assess in the particular environment and industry what we might select for, include in team education or support through culture initiatives to leverage the effectiveness of the leaders who we are assessing and developing. Further, it is not enough to simply assume that diversity or intrinsic motivation alone can lead to creativity in groups or teams; taking on another's perspective and elaborating help to ensure the promise of diversity and intrinsic motivation lead to creative, practical outcomes. In a strategic planning session, we might specifically view the key result areas from the lens of the magnitude and degree of innovation that is required in the other parts of the plan. The literature adds useful thinking to strategic dialogues and strategic planning.

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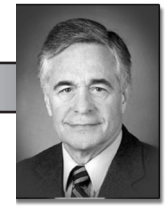
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FOUNDATION SPOTLIGHT



Announcing the HRM Impact Awards Program

Milton D. Hakel
SIOP Foundation President

I am delighted to announce that SHRM, SIOP, the SHRM Foundation and the SIOP Foundation will present the first HRM Impact Awards later this year. This exciting new program is a collaborative effort of the four partners, and it presents a wonderful showcase in which to spotlight the best evidence-based practice.

The four partners share a deep commitment to promoting human resource management practices that contribute to the success of today's global and local work organizations, making them better places to work. The partners also share a belief that the way to accomplish this goal is to assemble the best available evidence regarding the usefulness and impact of successfully implemented, innovative HRM initiatives. The HRM Impact Award was designed with this in mind.

Any for-profit, not-for-profit, or government organization, located anywhere in the world, may apply for recognition of an evidence-based initiative or practice used internally by that organization. The featured practice must be currently in use or have been in use within the past 5 years. The practice must be established enough to have generated data demonstrating its return on investment (ROI) and/or effectiveness. Applicants must provide measurement data to demonstrate evidence of the practice's effectiveness and/or ROI. If selected for an award, applicants must be willing to share the details of this practice in one or more of the following ways: brief video, academic case study, *HR Magazine* and/or *TIP* article, media interviews, presentations, and/or social media.

Applications will be evaluated by a panel of volunteer judges including both academics and HR practitioners from the four sponsoring organizations, SHRM, SIOP, the SIOP Foundation and the SHRM Foundation. Judges will evaluate submissions based on the following criteria: (a) Financial or operational impact on the business or enterprise; (b) people impact on employees and teams; (c) scientific impact on the practice of HR, industrial-organizational psychology, and/or management; and (d) quality of evidence in support of the financial, people, and scientific impacts.

Information about and the application form for the HRM Impact Award program is online at http://www.HRMImpactAwards.org. Nominations or applications may be made now and must be submitted by July 1. The winner(s) will be announced in October at the SHRM Strategy Conference and the SIOP Leading Edge Consortium.

This is a great opportunity to recognize and celebrate our scientific and practical contributions to enhancing effectiveness at work..



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Report of the SIOP Election Committee

Tammy D. Allen
Chair

In January of 2012 the SIOP Executive Board approved the refinement of several aspects of SIOP's election procedures. For a complete recap of these changes see "An Interview With Committee Chair **Doug Reynolds**" available online at: http://www.siop.org/article_view.aspx?article=957).

With regard to nominations, the main change was that in the event of a tie, individuals within the tied rank would be selected at random to appear on the ballot. The previous process was such that in the event of an equal number of nominations, the Election Committee had some discretion, which was used to ensure diversity among the nominees that appeared on the ballot (e.g., with regard to employment setting and demographic characteristics). In the last election the Administrative Office generated a random sequence of unique numbers that was used to select among nominees with an equal number of nominations.

With regard to the election, there were three key changes. The target number of slots on the ballot was specified (five for president and four for all other positions), the election was conducted using the Ware single transferable vote method, and the results of the specific number of votes received by each candidate were made available to the membership.

The Elections Committee committed to conducting a review of the new procedures after the initial election cycle. Below are observations about the recent election as well as changes to current procedures approved by the Executive Board at their January 2013 meeting that will go into effect in the next election cycle.

1. *There was no adverse impact on the number of members who voted.*

A total of 913 members voted for president in 2012. This is the highest number in 5 years, and one of the highest in the last 9 years. The vote total for president between 2004 and 2012 has ranged from 824 to 931.

Consistently, around 30% of eligible members vote.

2. *Feedback was generally positive.*

Positive comments were received from candidates and from members who expressed appreciation with regard to the transparency of the new procedures.

3. *This year, the results were the same as they would have been if members only voted for their top choice.*

The candidate who won each of the 4 officer positions was the leading vote getter after the 1st ballot.

4. *There is a need to codify procedures with regard to when candidates are informed of the other candidates who will appear on the ballot.*

Different procedures have been used in the past as to when candidates know the identity of other candidates. The Election Committee recommended that this

procedure be standardized and be written into the administrative procedures so that all nominees are aware of the process in advance. The Executive Board approved standardizing the process such that the full ballot becomes available to everyone at the same time via posting to the SIOP website. The following language was added to Section 3d of "SIOP Elections Committee Administrative Procedures (http://www.siop.org/reportsandminutes/electionProcedures.aspx)."

> After the slate of nominees has been finalized, the entire slate will be made available on the SIOP website. Nominees are not informed in advance of the names of other nominees.

5. *There is a need to address the small number of nominations received for some board positions.*

Historically, as well as in the last election, there are cases in which securing four willing nominees for officer positions other than president is difficult. Outside of the president role, it is not unusual for a small number of nominations to be received. Individuals are often nominated without their knowledge, resulting in members with only one nomination being asked to appear on the ballot. The Election Committee recommended that a minimum of two nominations be required to appear on the ballot once the minimum number of candidates required by the bylaws has been achieved. This change permits the election committee to flex the size of the ballot based on the number of nominations received. Specifically, the following language has been added to Section 3b of "SIOP Elections Committee Administrative Procedures."

> In each case, the top nominees must receive at least two nominations to be considered to fill the targeted number of slots. If there are not a sufficient number of nominees to fill the targeted slots, the ballot may be finalized with the available number of nominees as long as this number exceeds the minimum number of candidates required per the bylaws. If the required number of ballot slots is not filled, then candidates receiving only single nominations may be considered (using a random process to choose among them) until the required minimum is met.

6. *There is a need for continued review of the procedures.*

The Election Committee will continue to do an annual review of the impact of the new procedures. Although the changes overall to the nomination and election procedures appear to be favorable, one potential downside of the new nomination procedure is that, by removing any discretion by the Election Committee when there are ties, we also remove the ability to proactively diversify the ballot in terms of science–practice background, demographic diversity, and so on. The extent that members from a variety of backgrounds are nominated and willing to appear on the ballot is something that we will continue to monitor.

We had an excellent slate of candidates for all roles in the last election cycle. Congratulations and thanks to everyone who participated.

Houston, We Have a Conference!

Eden King
2013 Program Chair

Robin Cohen
2013 Conference Chair

Here are some not-to-be missed highlights from the SIOP 2013 conference! (Please see the January 2013 issue of *TIP* for more comprehensive descriptions.)

Wednesday

SIOP has landed! Newcomers are invited to an information session and reception at 5:30 p.m. and y'all should come to the Welcome Reception at 6:00! SIOPers know how to start a conference.

Thursday

Opening Plenary: Congratulate award winners, roast one president (**Doug Reynolds**), and hear a new one's vision (**Tammy Allen**)!

Theme Track: A full day of programming focused around the topic of bringing I-O innovations to life.

At our evening reception on Thursday, join us for the top-poster exhibition.

Friday

10:30: "I-O in the C-Suite: Perspectives from Heads of Human Resources." Loren Heeringa, Peter Fasolo, and **Leslie Joyce**

2:00: Meet your SIOP leaders: "A Conversation With SIOP Leadership." Doug Reynolds, Tammy Allen, and **Adrienne Colella.**

Saturday

10:30: *3rd Annual IGNITE Lightning Round:* "I-O Psychology's Influence on the World of Work." **Autumn Krauss, Kristin Charles, Fred Oswald, Janine Waclawski, Allan Church, Eduardo Salas, John Scott, Kurt Kraiger, David Peterson, James Sharf, Stephen Zaccaro,** and **Reeshad Dalal**

4:30: *Closing Plenary with Keynote Address by Father TJ Martinez*. You may not know him but he will charm your boots off and inspire you to influence others.

6:15: *Closing reception:* Featuring the tastes, sights, and sounds of the four corners of Texas. This is the perfect way to cap off the SIOP experience.

Throughout the Program

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- Communities of Interest
- Interactive Posters
- Master Collaboration
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Enjoy all of this in the heart of Texas. Did you know that according to a recent *New York Times* article Houston is the 7th best place to visit in the world? In fact, Houston is making its bid to be the cultural and culinary capital of the state. Near the hotel you will find a beautiful park, headquarters of *Fortune* 500 companies, museums, and professional baseball and basketball stadiums. Put on some boots, grab an ice tea or a Shiner beer, and reflect on how I-O psychology is even greater in Texas.

It is not too late!



You can register online or on site through April 11.

Visit www.siop.org/conferences for information and registration!

International Affairs Committee (IAC) White Paper Series

Alok Bhupatkar
American Institutes for Research

Lynda Zugec
The Workforce Consultants

Donald Truxillo
Portland State University

Purpose

The primary purpose of our IAC White Papers is to present the most recent topics of interest to the international I-O community. The end goal of these white papers is to make research evidence accessible to both scientists and practitioners around the globe. Additionally, along with the Professional Practice Committee at SIOP, we have partnered with the Society for Human Resource Management (SHRM) to publish certain white papers (http://www.siop.org/siop-shrm/default.aspx), which will illustrate the value of Industrial and Organizational Psychology to business, policy makers, and the SIOP and SHRM societies at large. The goal of our partnership is to introduce the science behind the I-O psychology and human resources disciplines into daily use within the workplace.

Background

The history of the IAC White Paper Series dates back to 2009 based on discussions among a number of SIOP, EAWOP, and IAAP members, including Donald Truxillo, Kurt Kraiger, and Jose Maria Peiró. During that time, Jose Maria proposed using some of the International Research Incubator topics (from the SIOP, EAWOP, and IAAP conferences) for future white paper series – an approach that inspired our first two white papers on Retirement and on Applicant Reactions. Additionally, during 2010-2011 Lynda Zugec and Alok Bhupatkar researched different White Paper Models and had several conversations with chairs from other committees, including Stuart Carr (Massey University) from the separate Work Psychology White Papers (WPWP) Steering Committee. These initial discussions were supported by both Lori Foster Thompson (SIOP) and Milt Hakel from the Alliance. The April 2012 TIP article written by Stuart Carr contains a description of our history. To access this article, please refer to the article titled "SIOP Initiatives on White Papers: The Story So Far" (April 2012 *TIP* issue).

White Paper Series Committee Members

The current IAC White Paper Series committee members include Donald Truxillo (IAC Committee Chair, Portland State University), Lynda Zugec

(White Paper Subcommittee Cochair, The Workforce Consultants), and Alok Bhupatkar (White Paper Subcommittee Cochair, American Institutes for Research). Through multiple discussions, this committee sent invitations to internationally renowned experts in the field of I-O and created the International Affairs White Paper Series Board. Through the years, others have served on this committee including Autumn Krauss, and we would like to sincerely thank the reviewers of the first series of white papers.

International Affairs White Paper Series Board

Through multiple discussions, this committee sent invitations to internationally renowned experts in the field of I-O psychology. We began the development of the White Paper Series by benchmarking other white paper models, and in 2012, we created the International Affairs White Paper Series Board (IAWSB). These board members were selected based on their affiliation with international organizational psychology societies and their expertise and stature in the field of I-O. The two main purposes of the IAWSB are to (a) identify the white paper topics and lead authors for the annual International Affairs Whitepaper Series and (b) review and provide feedback on the white papers as they are completed. Three members—Fernanda Afonso, **Barbara Kozusznik,** and **John C. Scott** (representatives from EAWOP, IAAP, and SIOP)—currently serve as board members for the 2012–2013 year. We wish to thank the three of them for their efforts in furthering the IAC White Paper Series.

Work to Date

Since 2011, IAC Chair Donald Truxillo and White Paper Subcommittee Chairs Lynda Zugec and Alok Bhupatkar began the development of the white paper publication process with the rest of the IAC Committee. An overview of the white papers published in 2011–12, plus the upcoming white papers expected for 2012–13, is presented in the table below:

Year	Title	Authors
2011–2012	What We Know About Applicant Reactions on Attitudes and Behavior: Research Summary and Best Practices	Talya N. Bauer, Julie McCarthy, Neil Anderson, Donald M. Truxillo, & Jesús F. Salgado
	Achieving Well-Being in Retirement: Recommendations From 20 Years' Research	Mo Wang & Beryl Hesketh
2012–2013	Humanitarian Work Psychology: Concepts to Contributions	Stuart Carr et al.
	Training	Kurt Kraiger et al.

Want Access to the IAC White Papers?

There are several websites where you can download the IAC white papers from. These are listed below.

SIOP Website

White papers can be accessed on the SIOP homepage (www.siop.org) under the "Publications" tab. Once under this tab, click on the heading "White Papers" or simply access it here: http://www.siop.org/WhitePapers/default.aspx

AOP Website

The SIOP IAC White Papers are also available at the Alliance for Organizational Psychology (AOP) website and can be downloaded here: http://www.allianceorgpsych.org/WhitePapers.aspx

SHRM Website

As part of the research collaboration between SIOP and SHRM, the white papers can also be downloaded here: http://www.shrm.org/Research/Articles/Pages/default.aspx

Once at this web address, click on the section titled "SHRM/SIOP Collaboration."

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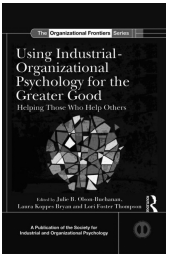
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The Organizational Frontiers Series presents two new SIOP books.

Using Industrial-Organizational Psychology for the Greater Good: Helping Those Who Help Others

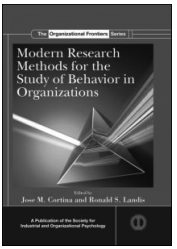
by Julie Olson-Buchanan, Laura Koppes Bryan, and Lori Foster Thompson



This volume is one of the first to show how the field of industrial-organizational psychology can help address societal concerns, and help focus research on the greater good of society. Contributions from worldwide experts showcase the power the I-O community has to foster, promote and encourage pro social efforts. Also included is commentary from an eminent group of I-O psychologists who give invaluable insights into the history and the future of I-O psychology . By presenting the prosocial contributions, from personal satisfaction and career commitment to organizational effectiveness to societal development, the imperative and easibility of using I-O psychology for the greater good becomes increasingly compelling.

Modern Research Methods for the Study of Behavior in Organizations

by José Cortina and Ron Landis



The goal for the chapters in this book SIOP Organizational Frontiers series volume is to challenge researchers to break away from the rote application of traditional methodologies and to capitalize upon the wealth of data collection and analytic strategies available to them. In that spirit, many of the chapters in this book deal with methodologies that encourage organizational scientists to re-conceptualize phenomena of interest (e.g., experience sampling, catastrophe modeling), employ novel data collection strategies (e.g., data mining, Petri nets), and/or apply sophisticated analytic techniques (e.g., latent class analysis). The editors believe that these chapters provide compelling solutions for the complex problems faced by organizational researchers.

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www.siop.org/store

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Interdivisional Grant: Leadership Diversity Summit

Kizzy M. Parks
K. Parks Consulting Inc.

Katina Sawyer
Villanova University

The state of leadership diversity is changing at a fast pace, both nationally and internationally. To get a more in-depth understanding of today's leaders, SIOP joined fellow APA Divisions (13, 35, 44, 45, and 51) to gain a better understanding of today's diversity leadership through an interdivisional project, known as the Leadership Diversity Summit (LDS; recently featured in the September 2012 issue of *Monitor on Psychology*). The LDS was held in conjunction with the 2013 National Multicultural Conference and Summit in Houston on January 16th, 2013. Fifteen leaders from different gender, racial, sexual orientation, and cultural groups across four sectors (corporate, government, community, and higher education leadership in psychology) participated in the summit. During the summit, leaders were asked to describe their experiences as diverse leaders, as well as to highlight the current dimensions of leadership in a dynamic workplace environment.

The goal of the LDS was to:

(a) Advance research and practice by drawing on the expertise of diverse leaders to highlight challenges in a rapidly changing, global leadership landscape.

(b) To discuss how diverse leadership may differ from "traditional" leadership paradigms.

This ground-breaking effort received funding from APA's Committee on Division/APA Relations (CODAPAR) committee, Office of Ethnic Minority Affairs (OEMA), support from the participating divisions, and sponsorships from two consulting firms. Two SIOP members (Kizzy Parks and Katina Sawyer) serve on the planning committee and assist in every phase of the LDS. Currently, the planning committee is reviewing the audiotape conversations in order to analyze the gathered information. The end result of this project will be a written document providing an overview of themes from the LDS and defining the resulting paradigm of leadership diversity. The results of this analysis will also be presented at the APA Annual Conference in August 2013. More information will be forthcoming and all LDS publications will be published and promoted by all divisions involved. For more information, please contact Kizzy Parks at kparks@kparksconsulting.com



Psychology and the Workplace

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2014 Call for Nominations and Funding Opportunities

David Baker
Chair, Awards Committee

The boards of SIOP and the SIOP Foundation would like to invite you to submit a nomination or application for a 2014 Award, Scholarship, Fellowship, or Research Grant. New this year! In an effort to make the nomination and application process easier for SIOP members, the Awards Committee has decided to streamline the system and open the call for all the awards simultaneously. This means one deadline for you to manage. Members can log in and nominate or apply for all available SIOP and SIOP Foundation awards in one easy step. Nominations and applications for eligible opportunities will be accepted beginning in May 2013 and end June 30, 2013.

Active SIOP members will receive an e-mail announcing the online acceptance of applications. The following opportunities are expected to be available:

- Distinguished Professional Contributions Award
- Distinguished Scientific Contributions Award
- Distinguished Service Contributions Award
- Distinguished Early Career Contributions Award: Practice
- Distinguished Early Career Contributions Award: Science
- Distinguished Teaching Contributions Award
- S. Rains Wallace Dissertation Award
- M. Scott Myers Award for Applied Research in the Workplace
- William A. Owens Scholarly Achievement Award
- Raymond A. Katzell Award in I-O Psychology
- Wiley Award for Excellence in Survey Research
- Hogan Award for Personality and Work Performance
- Jeanneret Award for Excellence in the Study of Individual or Group Assessment
- SIOP Small Grant Program
- Sidney A. Fine Grant for Research on Job Analysis
- The Douglas W. Bray and Ann Howard Research Grant
- Lee Hakel Graduate Student Scholarship
- Mary L. Tenopyr Graduate Student Scholarship
- Irwin L. Goldstein and Benjamin Schneider Scholarships sponsored by The Macey Fund (New scholarship for minority I-O students)
- Leslie W. Joyce and Paul W. Thayer Graduate Fellowship

Additional information regarding program focus, eligibility criteria, and submission guidelines for each of these programs can be found at http://www.siop.org/siopawards/ Awards will be presented at the 29th SIOP Annual Conference in 2014 in Hawaii.

All nominations and applications must be made online. A portal for submission of online nominations and entries for the 2014 Awards will be avail-

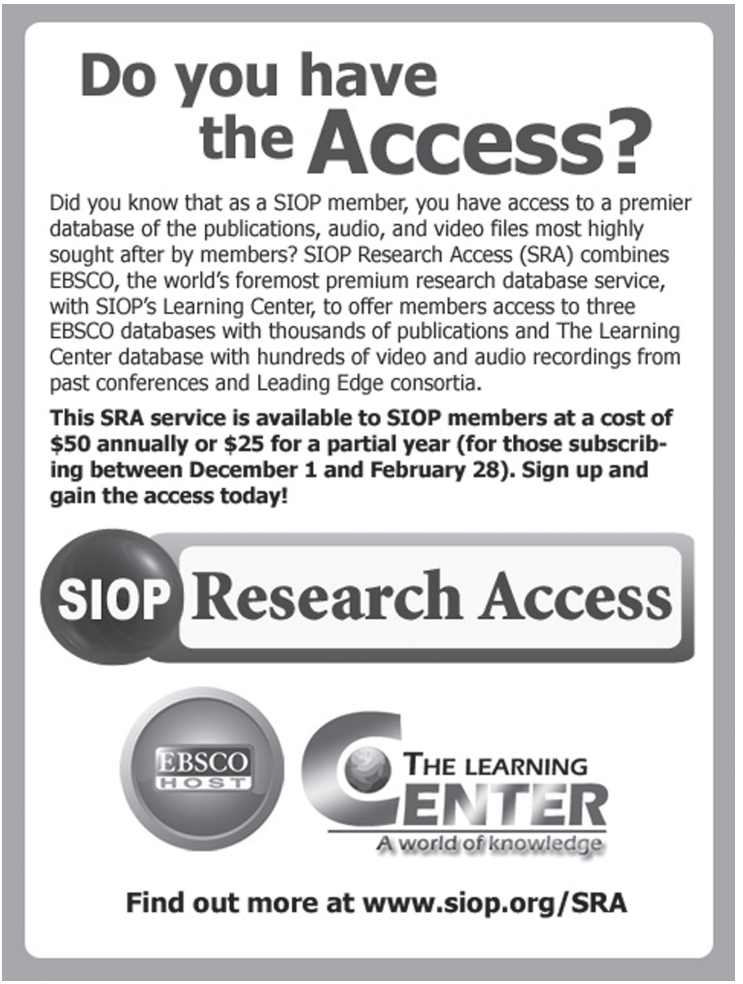
able through the SIOP website starting in early May. A complete list of prior winners is available at http://www.siop.org/awardwinners.aspx

DEADLINE FOR RECEIPT OF NOMINATIONS: June 30, 2013

Please direct all questions regarding these nominations to David Baker, dbaker@impaqint.com.

Look for These Additional Awards and Funding Opportunities Next Year!

- The Dunnette Prize
- George C. Thornton III Graduate Scholarship



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Clif Boutelle

Generally when we think of the media, it is the major newspapers, magazines and network radio and television that come to mind. While they still remain important to any organization seeking to generate awareness about itself, the Internet has created a whole new vista of media outlets that cannot be overlooked. In fact, more and more organizations are utilizing sites on the Internet to disseminate their news.

And a growing number of SIOP members are finding their way on to Internet sites because writers, whether mainstream media or on the Internet (often reporters are writing for both), still need credible resources. In addition, SIOP members are being asked with increasing frequency to author articles for a variety of sites, including trade journals, newsletters and specialized publications.

So, the opportunities for media mentions are expanding and that is good for the field of I-O psychology. Following are some of the press mentions, including Internet sites, which have occurred in the past several months:

The cartoonish loop-de-loop signature of U.S. Treasury Secretary Jack Lew was the subject of a January 29 *U.S. News & World Report* story about what can be learned from handwriting. Not much, when it comes to personnel decisions and a person's fitness for a position, said **Mike Aamodt** of DCI Consulting Group in Washington DC. "Graphology or handwriting analysis is considered less valid than other commonly used personnel selection methods," he said, adding that graphologists may be good at picking out features of handwriting, but their interpretation of what it means is questionable.

The January issue of *gradPSYCH* magazine included an article describing how psychologists can analyze and interpret the huge amounts of data being collected by organizations. **Doug Reynolds** of Development Dimensions International, Inc. and president of SIOP, noted that Big Data is a hot business topic driving a variety of business decisions, including human resources. **Roni Reiter-Palmon** of the University of Nebraska Omaha noted that, although mathematicians and statisticians can crunch big numbers and decipher trends, psychologists add their training to think critically about human behavior to the mix.

New research suggesting that overweight executives' leadership abilities and stamina were affected was reported in the January 16 *Wall Street Journal*. **Eden King** of George Mason University and **Steve Rogelberg** of the University of North Carolina Charlotte participated in the study for the Center for Creative Leadership. Using data from 757 executives measured between 2006 and 2010, the study found that weight might indeed influence perceptions of leaders as being less effective among subordinates, peers, and superiors.

The January 8 issue of *MSN CareerBuilder* offered advice for job seekers, and **Lynda Zugec** of The Workplace Consultants with offices in Toronto and New York City said that "positivity and persistence are the key" to a successful job search.

Research from The American Society for Training and Development noted that U.S. firms spent $156 billion on corporate training in 2011, yet bad management continues to plague many companies, according to a story in the December 28 issue of *Psychology Today*. One reason poor leaders are hired is that narcissists are more likely to ace interviews and to be selected. Unfortunately, narcissism doesn't equate to leadership success, said **Stanley Silverman** of the University of Akron. He has developed the Workplace Arrogance Scale that differentiates between narcissism and competence that can help organizations avoid costly hires.

During 2012, the boards of several big companies took the unusual step of issuing statements backing their CEO reported the December 18 *Wall Street Journal*. Rallying around a besieged chief can calm employees, lift a depressed stock price, and borrow time so that he or she can deliver on a risky strategy. Management experts say the trend shows, in part, how boards are coping with harsh criticism from vocal hedge-fund investors. "To resist such activists' push for short-term remedies, highly visible and accountable boards are stepping into that communication arena more than ever before," says **Paul Winum** of RHR International (Atlanta.).

Robert Hogan of Hogan Assessment Systems contributed to a November 29 *Forbes* article about what matters most to employees. Overcoming stress was a major concern because as Hogan said "75% of working adults say the worst and most stressful aspect of their job is their immediate boss."

The December issue of *Certified Accountant* magazine included comments from **Kathleen Grace** of Grace, Ltd. in Toronto about a published 3-year research finding that companies with the largest proportion of women in senior management roles also had the strongest bottom lines. She said once women are put in leadership positions, they score higher satisfaction points from employees than do their male counterparts. She also pointed out that "many organizations do not recognize the full potential of women, and often when male leaders make promotions they unconsciously prefer men over equally qualified females." She called it a "similar to me" bias.

A similar story about the lack of women leaders in the fashion industry appeared in the October 29 issue of *Women's Wear Daily* quoting **Anna Marie Valerio** of Executive Leadership Strategies in New York City. The imbalance seems to be the product of both a lingering sexism in the corporate sphere and circumstance as women strive for a work–life balance. Valerio said women need to get more "stretch" assignments that give them a management role and profit-and-loss responsibilities, as well as a chance to interact with customers and gain international experience. "One of the issues for

women and their bosses is to help women develop broader networks so they can understand how the entire organization works."

The December 10 issue of **American Express Business Forum** had a story about the importance of organizations maintaining a work–life balance for their employees that included comments by Lynda Zugec of The Workforce Consultants. "Being perceived as an 'employer of choice' because of work–life balance policies can provide a competitive edge for attracting and retaining talent," she said. "Employees who are positive about their workplace help to foster a positive attitude," among all workers, she added.

She was also quoted in a December 10 *Toronto Globe and Mail* story on holiday partying, which suggested these events are good opportunities to network and to get to know people better. She noted that although people are easier to talk to and more approachable at holiday parties, "it is important to gauge whether they are open to discussing business."

A December 5 story about the importance of balancing credit and blame for business failure or success in *Investor's Business Daily* featured **Ben Dattner** of Dattner Consulting in New York City. How leaders handle credit and blame "really gets to the core of careers, workplace dynamics, teams and organizations," he said. Successful people name contributors and thank others when good things occur. They also take the heat when things go wrong, shouldering responsibility and listing key lessons they've learned, he said. Poor leaders are quick to focus blame on others when things go wrong.

Dattner also contributed to a November 19 *MarketWatch/Wall Street Journal* article that featured four must-have job skills for employees, including clear communication, personal branding, flexibility and productivity improvement. But it's not just employees who need the skills; even hiring managers need to work on certain abilities as organizations consider expanding. "The ability to spot talent and hire people has fallen out of use over the last several years," he said, adding "as the economy turns around companies will have to work harder to retain talented employees."

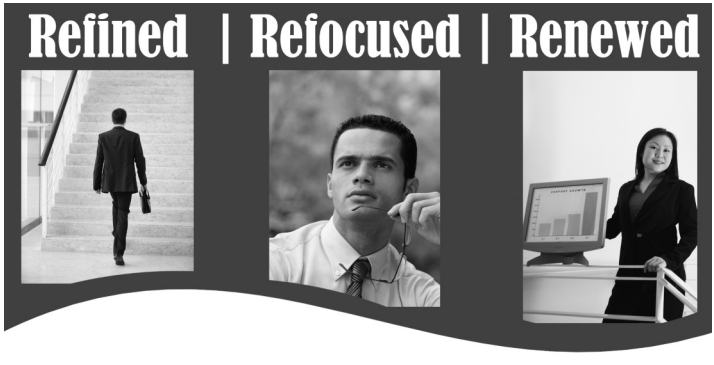
On November 9, Dattner was a guest on ABC-TV's "20-20" program talking about rage in the workplace and employee meltdowns. He noted that workplace tantrums can be a cry for dignity and employers need to pay close attention to employee reactions to workplace situations.

Eduardo Salas of the University of Central Florida was the subject of an October 26 *Wall Street Journal* interview about corporate training. The article noted that U.S. firms spent about $156 billion on employee learning in 2011, according to figures released the American Society for Training and Development. Despite the cost, time and effort devoted to training, Salas said many organizations do not rely on the science of learning and training. "I've been doing this for a long time and many organizations are uninformed about what it is we know about learning and training development."

Ryan Ross of Hogan Assessments wrote an article on improving engagement that appeared in the October 24 edition of TLNT.com, "The Business of HR." Employee engagement is critical to the well-being of organizations and he noted that the emergence of a new role, chief culture officer, is one way companies are working to inspire workers. He said that the best-qualified CCOs are those whose values most closely match those of the company.

Please let us know if you, or a SIOP colleague, have contributed to a news story. We would like to include that mention in **SIOP Members in the News.**

Send copies of the article to SIOP at boutelle@siop.org or fax to 419-352-2645 or mail to SIOP at 440 East Poe Rd. Ste. 101, Bowling Green, OH 43402.



9th Annual SIOP Leading Edge Consortium

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Chaired by Jeff McHenry.

For details, visit www.siop.org/lec



Stephen Young
Florida Tech

David Arnold of Wonderlic was reappointed to the position of General Counsel of the Association of Test Publishers at the association's recent conference in Berlin.

Awards and Honors

The Journal of Business and Psychology awarded the Reviewer of Year Award to **Chris Rosen** at University of Arkansas, **Daisy Chang** at Michigan State University, **Yujie Zhan** at Wilfrid Laurier University, and **David Kravitz** at George Mason University. The reviewers were congratulated for this significant achievement in providing comprehensive, high quality reviews for the journal.

Good luck and congratulations!

Keep your colleagues at SIOP up to date. Send items for **IOTAS** to **Lisa Steelman** at lsteelma@fit.edu.

TIP Advertising Policy

The publication of any advertisement by the Society for Industrial and Organizational Psychology (SIOP) is neither an endorsement of the advertiser nor of the products or services advertised. SIOP is not responsible for any claims made in an advertisement.

The publications of SIOP are published for, and on behalf of, the membership to advance the science and practice of the psychology of work. The Society reserves the right to, unilaterally, REJECT, OMIT, or CANCEL advertising that it deems to be not in the best interest of SIOP, the objectives set forth above, or that by its tone, content, or appearance is not in keeping with the essentially scientific, scholarly, and professional nature of its publications. Conditions, printed or otherwise, that conflict with this policy will not be binding on the publisher.

Adopted May 25, 2011

Announcing New SIOP Members

Mo Wang
University of Florida

The Membership Committee welcomes the following new Members, Associate Members, and International Affiliates to SIOP. We encourage members to send a welcome e-mail to them to begin their SIOP network. Here is the list of new members as of February 26, 2013.

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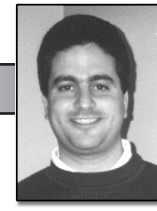
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WELCOME!

CONFERENCES & MEETINGS



David Pollack
Sodexo, Inc.

Please submit additional entries to David Pollack at David.Pollack@Sodexo.com.

2013

April 11–13	Annual Conference of the Society for Industrial and Organizational Psychology. Houston, TX. Contact: SIOP, www.siop.org. (CE credit offered.)
April 26–30	Annual Convention, National Council on Measurement in Education. San Francisco, CA. Contact: NCME, www.ncme.org.
April 27–May 1	Annual Convention, American Educational Research Association. San Francisco, CA. Contact: AERA, www.aera.net.
May 16–19	Work, Stress, and Health Conference. Los Angeles, CA. Contact: www.apa.org/wsh.
May 19–22	Annual Conference of the American Society for Training and Development. Dallas, TX. Contact: ASTD, www.astd.org.
May 23–26	Annual Convention of the Association for Psychological Science. Washington, DC. Contact: APS, www.psychologicalscience.org. (CE credit offered.)
June 13–15	Annual Conference of the Canadian Society for Industrial and Organizational Psychology. Quebec City, Quebec. Contact: www.psychology.uwo.ca/csiop.
June 16–19	Annual Conference of the Society for Human Resource Management. Chicago, IL. Contact: SHRM, www.shrm.org. (CE credit offered.)
July 21–24	Annual Conference of the International Personnel Assessment Council. Columbus, OH. Contact: IPAC, www.ipacweb.org.
July 31–Aug. 4	Annual Convention of the American Psychological Association. Honolulu, HI. Contact: APA, www.apa.org. (CE credit offered.)

Aug. 3–8	Annual Convention of the American Statistical Association. Montreal, Canada. Contact: ASA, www.amstat.org. (CE credit offered.)
Aug. 9–13	Annual Meeting of the Academy of Management. Orlando, FL. Contact: Academy of Management, www.aomonline.org.
Sept. 30–Oct. 4	Annual Conference of the Human Factors and Ergonomics Society. San Diego, CA. Contact: The Human Factors and Ergonomics Society, www.hfes.org. (CE credit offered.)
Oct 14–19	Annual Conference of the American Evaluation Association. Washington, DC. Contact: AEA, www.eval.org.
Oct. 18–19	SIOP Leading Edge Consortium. Richmond, VA. Contact: SIOP, www.siop.org/lec. (CE credit offered.)
Oct. 28–Nov. 1	Annual Conference of the International Military Testing Association. Seoul, South Korea. Contact: www.internationalmta.org.

2014

Feb. 20–23	Annual Conference of the Society of Psychologists in Management (SPIM). New Orleans, LA. Contact: www.spim.org. (CE credit offered.)
March 14–18	Annual Conference of the American Society for Public Administration. Washington, DC. Contact: ASPA, www.aspanet.org.
May 15–17	Annual Conference of the Society for Industrial and Organizational Psychology. Honolulu, HI. Contact: SIOP, www.siop.org. (CE credit offered.)
July 8–13	International Conference on Applied Psychology. Paris, France. Contact: www.icap2014.com.

Call for Submissions
2014 Conference on Commitment
Commitment in Organizational Contexts
November 14-15, 2014 Columbus, OH, USA

This conference brings together scholars interested in the phenomenon of commitment to share and discuss ideas and findings relating to the conference theme of "Commitment in Organizational Contexts." The purpose is to advance the literature by promoting leading-edge thinking on all aspects and forms of commitment in organizational contexts regardless of bases, mindsets or targets.

The conference will be a mix of invited (30%) and peer reviewed (70%) presentations. There will be a single track of presentations of a variety of lengths and formats. The small size promotes opportunities for informal interaction and dialogue among attendees to facilitate networking, collaboration, the sharing of ideas, and in-depth discussions. A special issue of Journal of Organizational Behavior will be developed from the best presentations and ideas.

Individuals interested in participating on the conference program need to submit an abstract for consideration. Deadline for submissions is **March 15, 2014.** Submitted proposals may be for single paper presentation but other formats (e.g., debates, panel discussions, round table discussions, symposia of related papers) are welcome and encouraged. Submissions may address any aspect of commitment in organizational contexts with a preference given to those with the greatest potential to advance the commitment literature by providing new insights, perspectives, or methodologies. Examples of desired submissions include but are not limited to those that (a) examine conflicts and interplay among commitments to multiple targets, (b) explore temporal issues in the development, maintenance, and loss of commitment, (c) help differentiate commitment from related psychological states and other types of workplace bonds, or (d) examine new or underresearched commitment targets.

For more information and detailed submission instructions, visit the conference web site **(http://fisher.osu.edu/~klein_12/Commitment.htm)** or contact the conference organizer, **Howard J. Klein, at klein_12@fisher.osu.edu.**

Kenneth E. Clark Student Research Award
2013 Call for Papers

The International Leadership Association (ILA) and the Center for Creative Leadership (CCL) cosponsor the annual Kenneth E. Clark Student Research Award to recognize outstanding unpublished papers by undergraduate and graduate students. Winner receives:

- $1,000 prize
- Complimentary travel and lodging (up to 2 nights) to ILA's annual conference

- 1-year ILA membership
- Recognition at the ILA conference and in ILA publications

Submissions may be empirically or conceptually based. Papers should focus on some aspect of leadership/leadership development.

Submissions will be judged by the degree to which: (a) the paper addresses issues significant to leadership study; (b) the paper considers relevant theoretical and empirical literature; (c) the paper makes a conceptual or empirical contribution; and (d) the research has applications to leadership identification and development. CCL researchers will anonymously review the papers.

Authors must be students or must have graduated within 1-year prior to submission deadline. CCL staff and papers submitted to other CCL awards are ineligible.

Submit the following in a single email:

1. PDF of the manuscript including only the title of the paper on the first page. Do not include the author's name.

2. Second one-page PDF including the paper title, author's full name, mailing and email addresses, phone number and classification (Bachelor's, Master's, or PhD, and current or projected graduation date).

3. Letter on organizational letterhead from one faculty member certifying student authorship.

Papers are limited to 30 double-spaced pages, excluding title page, abstract, figures, tables, and references. Prepare papers according to the Publication Manual of the American Psychological Association (6th edition).

Deadline: **5:00 p.m., EDT, June 14, 2013**. Winning paper will be announced during the ILA's 14th Annual Global Conference in Montréal, Québec, Canada on October 30-November 2, 2013.

Submit entries to: **ClarkAward@ccl.org.**

Call for Papers: *Journal of Managerial Psychology* Special Issue Organization Behaviour in African Organizations: Employee and Managerial Issues

Deadline : 1 July 2013

Guest Editors: Dr. Stella M. Nkomo, University of Pretoria, (stella.nkomo@up.ac.za); Dr. David A. Zoogah, Morgan State University (David.Zoogah@morgan.edu); and Dr. Samuel Mafabi, Makerere Business School (smafabi@mubs.ac.ug)

Africa with a population of over 1 billion is the second most populous continent on the planet after Asia. Recent economic forecasts for the continent point to its rising presence in the global marketplace. Although commodities and natural resources have always been viewed as the primary means for Africa's development, its greatest untapped resource in the 21st century may well be its people (Jackson, 2004). A recent review of published research on management in Africa

from 1960 to the present noted that there are a number of articles on OB issues in Africa, but much more research is needed to assess the challenges managers encounter in mobilizing the talent of the continent's workforce (Kamoche, 2011)

In this special issue, we are seeking micro-oriented manuscripts that provide insight into the issues related to managing people in African organizations. We invite contributions that are empirical as well as theoretical that provide new knowledge, particularly on untapped topics. Please see the *JMP* website for detailed requirements of the special issue.

Please submit manuscripts in MS Word 2003 format via the Manuscript Central system on the journal's website (http://www.emeraldinsight.com/products/journals/author_guidelines.htm?id=jmp). Manuscripts are expected to follow the *JMP* submission guidelines: http://info.emeraldinsight.com/products/journals/author_guidelines.htm?id=jmp.

Interested authors are encouraged to send questions or a short description of their proposed manuscript to the **Guest Editor, Stella Nkomo (stella.nkomo@up.ac.za).** Please send all questions about submission requirements, formatting, to **Kay Wilkinson (kwilkinson@emeraldinsight.com), the JMP Administrator.**

Request for Proposals
Visionary Grants and The Drs. Rosalee G. and Raymond A. Weiss Research and Program Innovation Grants

The American Psychological Foundation (APF)

APF provides financial support for innovative research and programs that enhance the power of psychology to elevate the human condition and advance human potential both now and in generations to come.

Since 1953, APF has supported a broad range of scholarships and grants for students and early career psychologists as well as research and program grants that use psychology to improve people's lives.

APF encourages applications from individuals who represent diversity in race, ethnicity, gender, age, disability, and sexual orientation.

The Grants

The Visionary Grants and Drs. Raymond A. and Rosalee G. Weiss Program and Innovation Grant support innovative research, education, and intervention efforts that advance psychological knowledge and application in

- Understanding and fostering mental-physical health connections
- Reducing stigma and prejudice
- Understanding and preventing all forms of violence
- Addressing long-term psychological needs in the aftermath of disaster

Preference will be given to early career psychologists (7 years or less postdoctoral), pilot projects that, if successful, would be strong candidates for

support from major federal and foundation funding agencies, and "demonstration projects" that promise to generalize broadly to similar settings in other geographical areas and/or settings.

Amount

Visionary Grants range from $5,000-20,000

Drs. Raymond A. and Rosalee G. Weiss Program and Innovation Grant: up to $2,500

Proposal Requirements

Include the following sections in your proposal (no more than 7 pages; 1 inch margins, no smaller than 11 point font):

- Goals and objectives
- Workplan and timeline
- Program evaluation/outcomes measures
- Personnel
- Budget

Submission

Submit a completed application as a single PDF document online at **http://forms.apa.org/apf/grants/** by **May 1, 2013.**

More information:
http://www.apa.org/apf/funding/grants/visionary.aspx
Please contact Parie Kadir, Program Officer, at **pkadir@apa.org.**

Special Issue on Inductive Research in Organizations
Journal of Business and Psychology

Special Feature Editors: Ann Marie Ryan, Michigan State University; Neal Schmitt, Michigan State University; Paul Spector, University of South Florida; Robert Vandenberg, University of Georgia; Sheldon Zedeck, University of California Berkeley; and Steven Rogelberg, University of North Carolina Charlotte.

Papers will appear in a special issue that describes studies that are inductive rather than deductive, that is, they report results of studies that are not positioned as tests of theories. This might include studies that describe phenomena (e.g., the incidence of certain problems across organizations) or are exploratory (e.g., the study of new phenomena or phenomena that have received little attention). Intervention studies that would not have a strong theoretical basis are also appropriate, including studies demonstrating that a particular intervention had an effect on an important organizational variable.

Submission Guidelines

- Deadline is June 1, 2013
- Submit papers online to: http://jobu.edmgr.com/
- We encourage author questions at any time (sgrogelb@uncc.edu).

- A compelling rationale is essential to good inductive research.
- Focus is on inductive research that is quantitative in nature. We are also not seeking conceptual papers.
- Seeking meaningful connections to extant literature is critical.
- A paper must show how the results contribute to our understanding of the phenomena of interest.
- Good inductive research analyzes the data to rule out alternative explanations.
- Inductive research requires the authors to be highly transparent in analytic methods.
- An editorial board composed of individuals open to inductive research will review papers fairly and appropriately.

This special feature will serve as a case-study of sorts of the inductive approach to advancing our science. Therefore, additional pieces will be included in the special feature that discuss the challenges

Additional context: Science 23 March 2012: Vol. 335 no. 6075 p. 1439

Information for Contributors

Please read carefully before sending a submission.

TIP encourages submissions of papers addressing issues related to the practice, science, and/or teaching of industrial and organizational psychology. Preference is given to submissions that have broad appeal to SIOP members and are written to be understood by a diverse range of readers.

Preparation and Submission of Manuscripts, Articles, and News Items

Authors may correspond with the editor via e-mail, at lsteelma@fit.edu. All manuscripts, articles, and news items for publication consideration should be submitted in electronic form (Word compatible) to the editor at the above e-mail address. For manuscripts and articles, the title page must contain a word count (up to 3,000 words) and the mailing address, phone number, and e-mail address of the author to whom communications about the manuscript should be directed. Submissions should be written according to the *Publication Manual of the American Psychological Association*, 6th edition.

All graphics (including color or black and white photos) should be sized close to finish print size, at least 300 dpi resolution, and saved in TIF or EPS formats. Art and/or graphics must be submitted in camera-ready copy as well (for possible scanning).

Included with the submission should be a statement that the material has not been published and is not under consideration for publication elsewhere. It will be assumed that the listed authors have approved the manuscript.

Preparation of News and Reports, IOTAS, SIOP Members in the News, Calls and Announcements, Obituaries

Items for these sections should be succinct and brief. Calls and Announcements (up to 300 words) should include a brief description, contact information, and deadlines. Obituaries (up to 500 words) should include information about the person's involvement with SIOP and I-O psychology. Digital photos are welcome.

Review and Selection

Every submission is reviewed and evaluated by the editor for conformity to the overall guidelines and suitability for *TIP*. In some cases, the editor will ask members of the Editorial Board to review the submission. Submissions well in advance of issue deadlines are appreciated and necessary for unsolicited manuscripts. The editor reserves the right to determine the appropriate issue to publish an accepted submission. All items published in *TIP* are copyrighted by SIOP.

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Serving Our Clients: Validation News

Comments by Tom Ramsay

Energy Providers:

Ramsay Corporation developed job knowledge measures for Nevada's **NV Energy** *Electrical/ Instrumentation Technician.* They use our online testing system across all corporate locations with parallel alternate equivalent tests. We also held a training session for test administrators.

Metals Industry:

At **ArcelorMittal** in Steelton, PA, we custom-designed a technical test for *Senior Operating Technician – 44" Mill Reheat Furnace Area*. In addition, the study also included the validation of tests to measure leadership and team skills.

Food Companies:

We constructed and validated 100-item multiple-choice tests measuring knowledge and skills for three levels of *Maintenance Mechanic* at **Saputo Cheese USA**, Newman, CA.

Health Sciences:

For **Covidien,** St. Louis, MO, we studied the job duties of *Electrician* and *Pipefitter*. We validated our *Electrician (Chemical)* and *Pipefitter* tests for their use in the job selection process.

Consumer Products:

We delivered tests for *Manufacturing Maintenance I, II,* and *III* to **McNeil Consumer Healthcare** in Fort Washington, PA. We were able to devise and validate tests with suitable cutting scores for each of the three levels.

We worked with **Goodyear Tire and Rubber Company** to introduce a hands-on assessment and a multiple-choice test for *Welder.* A multiple-choice test for *Multi-Craft Technician* was also validated. All tests are used at various facilities throughout the United States.

For more information or to discuss use of our tests for your organization, contact us.

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